Fig. 1

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Fig. 2A

Fig. 2B

Fig. 3

Fig. 4

Fig. 5

Fig. 6A

Fig. 6B

Expression of P501S
by the Baculovirus Expression System

0.6 million high 5 cells in 6-well plate were infected with an unrelated
control virus BV/ECD_PD (lane2), without virus (lane3), or with
recombinant baculovirus for P501 at different MOIs (lane 4-8). Cell
lysates were run on SDS-PAGE under the reducing conditions and analyzed
by Western blot with a monoclonal antibody against P501S
(P501S-10E3-G4D3). Lane 1 is the biotinylated protein molecular weight
marker (BioLabs).

Fig. 7

FIGURE 8. Mapping of the epitope recognized by
10E3-G4-D3

P501S frag 341-527
P501Speptide 439-459
P501S peptide 425-444
P501S peptide 411-430
All other peptides

ng 10E3

O.D. 450

Full-length P501S:

1   343   525 553

☒ : P501S sequence
■ : Transmembrane domain

P501S fragment used for immunization:
11   527

MDRLVQRPGTRAVYLASVA
YLASVAAFPVAAGATCLSHS
TCLSHSVAVTASAALTGFT
ALTGFTPSALQILPYTLASL
YTLASLYHREKQVFLPKYRG
LPKYRGDTGGASSEDSLMIS
DSLMISFLPGPKPGAPFPNG
439APFPNGHVGAGGSGLLPPPPA459
LLPPPPALCGASACDVSVRV
DVSVRVWGEPTEARVVPGR
RVVPGRCICLDLAILDSAFL
LDSAFLLSQVAPSLFMGSIV
FMGSIVQLSQSVTAYMVSAA

Fig. 8

Schematic of P501S with predicted
transmembrane, cytoplasmic, and extracellular regions

MVQRLWVSRLLRHRK AQLLLVNLLTFGLEVCLAAGIT **YVPPLLLEVGVEEKFM**
TMVLGIGPVLGLVCYPLLGSAS

DHWRGRYGRRRP FIWALSLGILLSLFLIPRAGWL **AGLLCPDPRPLE** LALLILGVGLLDFCGQVCFTPL

EALLSDLFRDPDHCRQ AYSVYAFMISLGGCLGYLLPAI **DWDTSALAPYLGTQEE**

CLFGLLTLIFLTCVAATLLV *AEEAALGPTEPAEGLSAPSLSPHCCPCRARLAFRNLGALLPRL*

HQLCCRMPRTLRR LFVAELCSWMALMTFTLFYTDF **VGEGLYQGVPRAEPGTEARRHYDEGVR**

MGSLGLFLQCAISLVFSLVM DRLVQRFGTRAVYLAS VAAFPVAAGATCLSHSVAVVTA **SAA**

LTGFTFSALQILPYTLASLY *HREKQVFLPKYRGDTGGASSEDSLMTSFLPGPKPGAPFPNGHVGAGGSGL*

LPPPPALCGASACDVSVRVVVGEPTEARVVPGRG ICLDLAILDSAFLLSQVAPSLF **MGSIVQLSQS**

VTAYMVSAAGLGLVAIYFAT *QVVFDKSDLAKYSA*

Underlined sequence: Predicted transmembrane domain; **Bold sequence**:
Predicted extracellular domain; *Italic sequence*: Predicted intracellular
domain. Sequence in bold/underlined: used generate polyclonal rabbit
serum

Localization of domains predicted using HMMTOP (G.E. Tusnady an I. Simon
(1998) Principles Governing Amino Acid Composition of Integral Membrane
Proteins: Applications to topology Prediction.J.Mol Biol. 283, 489-506.

Fig. 9

Fig. 10

Elisa assay of rabbit polyclonal
antibody specificity

P501S 306-320 RAEPGTEARRNYDEG(cg)
P501S 296-320: (gc)VGEGLYQGVPRAEPGTEARRHYDEG
P501S 439-459
P501S FRAGMENT 343-525

Fig. 11

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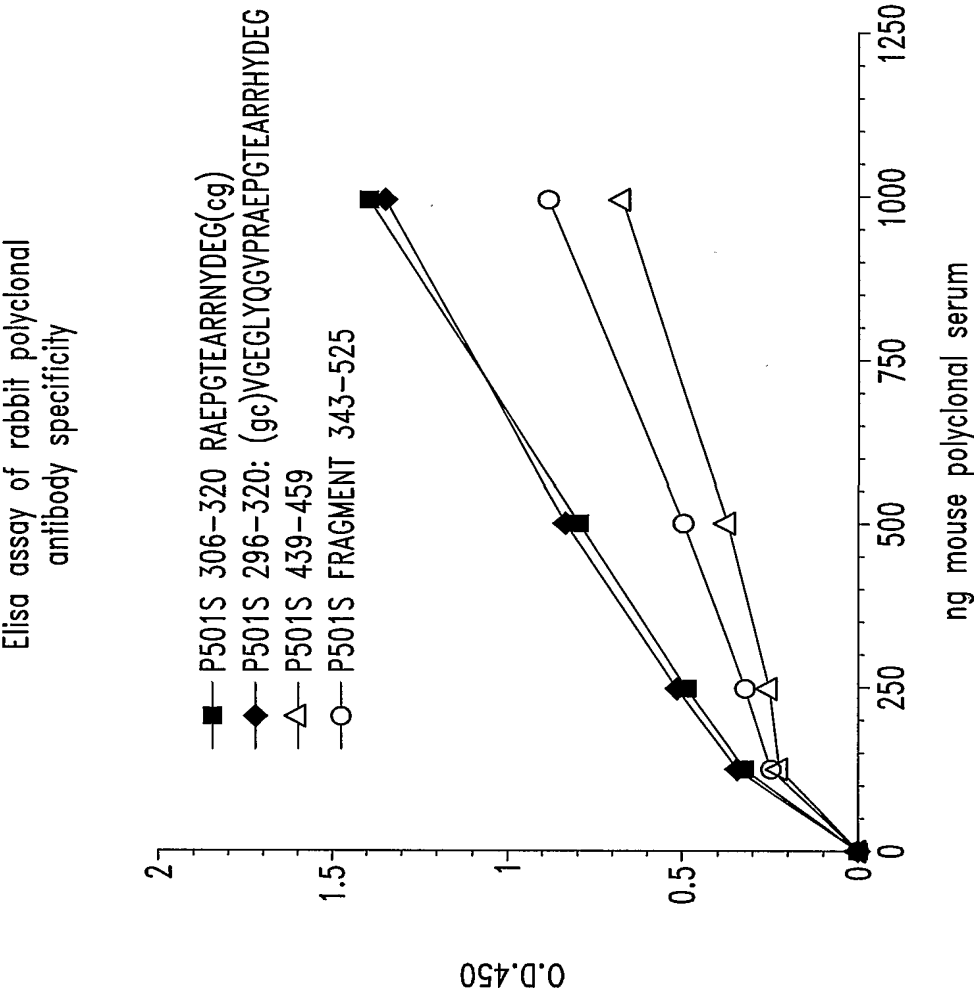
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Fig. 12A (2)

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Fig. 12A (3)

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Fig. 12B

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SEQUENCE LISTING

<110> Corixa Corporation
      Xu, Jiangchun
      Dillon, Davin C.
      Mitcham, Jennifer L.
      Harlocker, Susan L.
      Yuqui, Jiang
      Kalos, Michael D.
      Fanger, Gary R.
      Retter, Marc W.
      Stolk, John A.
      Day, Craig H.
      Vedvick, Thomas S.
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      Li, Samuel
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<400> 6
```

4

```
tttttttttt tttttttttt aagaccctca tcaatagatg gagacataca gaaatagtca       60
aaccacatct acaaaatgcc agtatcaggc ggcggcttcg aagccaaagt gatgtttgga      120
tgtaaagtga aatattagtt ggcggatgaa gcagatagtg aggaaagttg agccaataat      180
gacgtgaagt ccgtggaagc ctgtggctac aaaaaatgtt gagccgtaga tgccgtcgga      240
aatggtgaag ggagactcga agtactctga ggcttgtagg agggtaaaat agagacccag      300
taaaattgta ataagcagtg cttgaattat ttggtttcgg ttgttttcta ttagactatg      360
gtgagctcag gtgattgata ctcctgatgc gagtaatacg gatgtgttta ggagtgggac      420
ttctagggga tttagcgggg tgatgcctgt tgggggccag tgccctccta gttggggggt      480
aggggctagg ctggagtggt aaaaggctca gaaaaatcct gcgaagaaaa aaacttctga      540
ggtaataaat aggattatcc cgtatcgaag gccttttttgg acaggtggtg tgtggtggcc      600
ttggtatgtg ctttctcgtg ttacatcgcg ccatcattgg tatatggtta gtgtgttggg      660
ttantanggc ctantatgaa gaacttttgg antggaatta aatcaatngc ttggccggaa      720
gtcattanga nggctnaaaa ggccctgtta ngggtctggg ctnggtttta cccnacccat      780
ggaatncncc ccccggacna ntgnatccct attcttaa                              818
```

```
        <210> 7
        <211> 817
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(817)
        <223> n = A,T,C or G

        <400> 7
tttttttttt tttttttttt tggctctaga ggggggtagag ggggtgctat agggtaaata      60
cgggccctat ttcaaagatt tttaggggaa ttaattctag gacgatgggt atgaaactgt      120
ggtttgctcc acagatttca gagcattgac cgtagtatac ccccggtcgt gtagcggtga      180
aagtggtttg gtttagacgt ccgggaattg catctgtttt taagcctaat gtggggacag      240
ctcatgagtg caagacgtct tgtgatgtaa ttattatacn aatgggggct tcaatcggga      300
gtactactcg attgtcaacg tcaaggagtc gcaggtcgcc tggttctagg aataatgggg      360
gaagtatgta ggaattgaag attaatccgc cgtagtcggt gttctcctag gttcaatacc      420
attggtggcc aattgatttg atggtaaggg gaggggatcgt tgaactcgtc tgttatgtaa      480
aggatncctt ngggatggga aggcnatnaa ggactangga tnaatggcgg gcangatatt      540
tcaaacngtc tctanttcct gaaacgtctg aaatgttaat aanaattaan tttngttatt      600
gaatnttnng gaaaagggct tacaggacta gaaaccaaat angaaaanta atnntaangg      660
cnttatcntn aaaggtnata accnctccta tnatcccacc caatngnatt ccccacncnn      720
acnattggat nccccanttc canaaanggc cnccccccgg tgnannccnc cttttgttcc      780
cttnantgan ggttattcnc ccctngcntt atcancc                              817
```

```
        <210> 8
        <211> 799
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(799)
        <223> n = A,T,C or G

        <400> 8
catttccggg tttactttct aaggaaagcc gagcggaagc tgctaacgtg ggaatcggtg       60
cataaggaga actttctgct ggcacgcgct agggacaagc gggagagcga ctccgagcgt      120
ctgaagcgca cgtcccagaa ggtggacttg gcactgaaac agctgggaca catccgcgag      180
tacgaacagc gcctgaaagt gctggagcgg gaggtccagc agtgtagccg cgtcctgggg      240
tgggtggccg angcctganc cgctctgcct tgctgccccc angtgggccg ccaccccctg      300
acctgcctgg gtccaaacac tgagccctgc tggcggactt caagganaac ccccacangg      360
```

5

```
ggattttgct cctanantaa ggctcatctg ggcctcggcc cccccacctg gttggccttg      420
tctttgangt gagccccatg tccatctggg ccactgtcng gaccaccttt ngggagtgtt      480
ctccttacaa ccacannatg cccggctcct cccggaaacc antcccancc tgngaaggat      540
caagncctgn atccactnnt nctanaaccg gccnccnccg cngtggaacc cnccttntgt      600
tccttttcnt tnagggttaa tnncgccttg gccttnccan ngtcctncnc nttttccnnt      660
gttnaaattg ttangcnccc nccnntcccn cnncnncnan cccgacccnn annttnnann      720
ncctgggggt nccnncngat tgacccnncc nccctntant tgcnttnggg nncnntgccc      780
ctttccctct ngggganncg                                                 799
```

```
        <210> 9
        <211> 801
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(801)
        <223> n = A,T,C or G

        <400> 9
acgccttgat cctcccaggc tgggactggt tctgggagga gccgggcatg ctgtggtttg       60
taangatgac actcccaaag gtggtcctga cagtggccca gatggacatg gggctcacct      120
caaggacaag gccaccaggt gcggggggccg aagcccacat gatccttact ctatgagcaa      180
aatcccctgt gggggcttct ccttgaagtc cgccancagg gctcagtctt tggacccang      240
caggtcatgg ggttgtngnc caactggggg ccncaacgca aaanggcnca gggcctcngn      300
cacccatccc angacgcggc tacactnctg gacctcccnc tccaccactt tcatgcgctg      360
ttcntacccg cgnatntgtc ccanctgttt cngtgccnac tccancttct nggacgtgcg      420
ctacatacgc ccggantcnc nctcccgctt tgtccctatc cacgtnccan caacaaattt      480
cnccntantg caccnattcc cacnttttnnc agntttccnc nncgngcttc cttntaaaag      540
ggttganccc cggaaaaatnc cccaaagggg ggggggccngg tacccaactn ccccctnata      600
gctgaantcc ccatnaccnn gnctcnatgg anccntccnt tttaannacn ttctnaactt      660
gggaananacc ctcgnccntn ccccccnttaa tcccnccttg cnangnncnt cccccnntcc      720
ncccnnntng gcntntnann cnaaaaaggc ccnnnancaa tctcctnncn cctcanttcg      780
ccanccctcg aaatcggccn c                                                801
```

```
        <210> 10
        <211> 789
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(789)
        <223> n = A,T,C or G

        <400> 10
cagtctatnt ggccagtgtg gcagctttcc ctgtggctgc cggtgccaca tgcctgtccc       60
acagtgtggc cgtggtgaca gcttcagccg ccctcaccgg gttcaccttc tcagccctgc      120
agatcctgcc ctacacactg gcctccctct accaccggga gaagcaggtg ttcctgccca      180
aataccgagg ggacactgga ggtgctagca gtgaggacag cctgatgacc agcttcctgc      240
caggccctaa gcctggagct cccttcccta atggacacgt gggtgctgga ggcagtggcc      300
tgctcccacc tccacccgcg ctctgcgggg cctctgcctg tgatgtctcc gtacgtgtgg      360
tggtgggtga gcccaccgan gccagggtgg ttccgggccg gggcatctgc ctggacctcg      420
ccatcctgga tagtgcttcc tgctgtccca ngtggcccca tccctgttta tgggctccat      480
tgtccagctc agccagtctg tcactgccta tatggtgtct gccgcaggcc tgggtctggt      540
cccatttact ttgctacaca ggtantattt gacaagaacg anttggccaa atactcagcg      600
ttaaaaaatt ccagcaacat tgggggtgga aggcctgcct cactgggtcc aactccccgc      660
tcctgttaac cccatggggc tgccggcttg ccgccaatt tctgttgctg ccaaantnat      720
```

```
gtggctctct gctgccacct gttgctggct gaagtgcnta cngcncanct nggggggtng      780
ggngttccc                                                              789
```

```
        <210> 11
        <211> 772
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(772)
        <223> n = A,T,C or G

        <400> 11
cccaccctac ccaaatatta gacaccaaca cagaaaagct agcaatggat tcccttctac       60
tttgttaaat aaataagtta aatatttaaa tgcctgtgtc tctgtgatgg caacagaagg      120
accaacaggc cacatcctga taaaaggtaa gaggggggtg gatcagcaaa aagacagtgc      180
tgtgggctga ggggacctgg ttcttgtgtg ttgcccctca ggactcttcc cctacaaata      240
actttcatat gttcaaatcc catggaggag tgtttcatcc tagaaactcc catgcaagag      300
ctacattaaa cgaagctgca ggttaagggg cttanagatg ggaaaccagg tgactgagtt      360
tattcagctc ccaaaaaccc ttctctaggt gtgtctcaac taggaggcta gctgttaacc      420
ctgagcctgg gtaatccacc tgcagagtcc ccgcattcca gtgcatggaa cccttctggc      480
ctccctgtat aagtccagac tgaaacccc ttggaaggnc tccagtcagg cagccctana      540
aactggggaa aaaagaaaag gacgccccan cccccagctg tgcanctacg cacctcaaca      600
gcacagggtg gcagcaaaaa aaccacttta ctttggcaca aacaaaaact ngggggggca      660
accccggcac cccnanggg gttaacagga ancngggnaa cntggaaccc aattnaggca      720
ggcccnccac cccnaatntt gctgggaaat ttttcctccc ctaaattntt tc             772
```

```
        <210> 12
        <211> 751
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(751)
        <223> n = A,T,C or G

        <400> 12
gccccaattc cagctgccac accacccacg gtgactgcat tagttcggat gtcatacaaa       60
agctgattga agcaaccctc tactttttgg tcgtgagcct tttgcttggt gcaggtttca      120
ttggctgtgt tggtgacgtt gtcattgcaa cagaatgggg gaaaggcact gttctctttg      180
aagtanggtg agtcctcaaa atccgtatag ttggtgaagc cacagcactt gagcccttc       240
atggtggtgt tccacacttg agtgaagtct tcctgggaac cataatcttt cttgatggca      300
ggcactacca gcaacgtcag ggaagtgctc agccattgtg gtgtacacca aggcgaccac      360
agcagctgcn acctcagcaa tgaagatgan gaggangatg aagaagaacg tcncgagggc      420
acacttgctc tcagtcttan caccatanca gcccntgaaa accaananca aagaccacna      480
cnccggctgc gatgaagaaa tnaccccncg ttgacaaact tgcatggcac tgggganccac      540
agtggcccna aaaatcttca aaaggatgc cccatcnatt gaccccccaa atgcccactg      600
ccaacagggg ctgccccacn cncnnaacga tganccnatt gnacaagatc tncntggtct      660
tnatnaacnt gaaccctgcn tngtggctcc tgttcaggnc cnnggcctga cttctnaann      720
aangaactcn gaagnccca cngganannc g                                      751
```

```
        <210> 13
        <211> 729
        <212> DNA
        <213> Homo sapien
```

7

```
<220>
<221> misc_feature
<222> (1)...(729)
<223> n = A,T,C or G

<400> 13
gagccaggcg tccctctgcc tgcccactca gtggcaacac ccgggagctg ttttgtcctt       60
tgtggancct cagcagtncc ctctttcaga actcantgcc aaganccctg aacaggagcc      120
accatgcagt gcttcagctt cattaagacc atgatgatcc tcttcaattt gctcatcttt      180
ctgtgtggtg cagccctgtt ggcagtgggc atctgggtgt caatcgatgg ggcatccttt      240
ctgaagatct tcgggccact gtcgtccagt gccatgcagt ttgtcaacgt gggctacttc      300
ctcatcgcag ccggcgttgt ggtcttagct ctaggtttcc tgggctgcta tggtgctaag      360
actgagagca agtgtgccct cgtgacgttc ttcttcatcc tcctcctcat cttcattgct      420
gaggttgcaa tgctgtggtc gccttggtgt acaccacaat ggctgagcac ttcctgacgt      480
tgctggtaat gcctgccatc aanaaaagat tatgggttcc caggaanact tcactcaagt      540
gttggaacac caccatgaaa gggctcaagt gctgtggctt cnnccaacta tacggatttt      600
gaagantcac ctacttcaaa gaaaanagtg cctttcccc atttctgttg caattgacaa       660
acgtccccaa cacagccaat tgaaaacctg cacccaaccc aaangggtcc ccaaccanaa      720
attnaaggg                                                              729
```

```
<210> 14
<211> 816
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(816)
<223> n = A,T,C or G

<400> 14
tgctcttcct caaagttgtt cttgttgcca taacaaccac cataggtaaa gcgggcgcag       60
tgttcgctga aggggttgta gtaccagcgc gggatgctct ccttgcagag tcctgtgtct      120
ggcaggtcca cgcagtgccc tttgtcactg gggaaatgga tgcgctggag ctcgtcaaag      180
ccactcgtgt attttttcaca ggcagcctcg tccgacgcgt cggggcagtt gggggtgtct     240
tcacactcca ggaaactgtc natgcagcag ccattgctgc agcggaactg ggtgggctga      300
cangtgccag agcacactgg atggcgcctt tccatgnnan gggccctgng ggaaagtccc      360
tganccccan anctgcctct caaangcccc accttgcaca ccccgacagg ctagaatgga      420
atcttcttcc cgaaaggtag ttnttcttgt tgcccaancc anccccntaa acaaactctt      480
gcanatctgc tccgnggggg tcntantacc ancgtgggaa aagaacccca ggcngcgaac      540
caancttgtt tggatncgaa gcnataatct nctnttctgc ttggtggaca gcaccantna      600
ctgtnnanct ttagnccntg gtcctcntgg gttgnncttg aacctaatcn ccnntcaact      660
gggacaaggt aantngccnt cctttnaatt cccnancntn cccctggtt tggggtttttn      720
cncnctccta ccccagaaan nccgtgttcc cccccaacta ggggccnaaa ccnnttnttc      780
cacaaccctn ccccacccac gggttcngnt ggttng                                816
```

```
<210> 15
<211> 783
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(783)
<223> n = A,T,C or G

<400> 15
ccaaggcctg ggcaggcata nacttgaagg tacaacccca ggaacccctg gtgctgaagg       60
```

8

```
atgtggaaaa cacagattgg cgcctactgc ggggtgacac ggatgtcagg gtagagagga     120
aagacccaaa ccaggtggaa ctgtggggac tcaaggaang cacctacctg ttccagctga     180
cagtgactag ctcagaccac ccagaggaca cggccaacgt cacagtcact gtgctgtcca     240
ccaagcagac agaagactac tgcctcgcat ccaacaangt gggtcgctgc cggggctctt     300
tcccacgctg gtactatgac cccacggagc agatctgcaa gagtttcgtt tatggaggct     360
gcttgggcaa caagaacaac taccttcggg aagaagagtg cattctancc tgtcngggtg     420
tgcaaggtgg gcctttgana ngcanctctg gggctcangc gactttcccc cagggcccct     480
ccatggaaag gcgccatcca ntgttctctg gcacctgtca gcccacccag ttccgctgca     540
ncaatggctg ctgcatcnac antttcctng aattgtgaca acaccccca ntgcccccaa      600
ccctcccaac aaagcttccc tgttnaaaaa tacncccatt ggcttttnac aaacncccgg     660
cncctccntt ttccccnntn aacaaagggc nctngcnttt gaactgcccn aacccnggaa     720
tctnccnngg aaaaantncc cccctggtt cctnnaancc cctccncnaa anctnccccc      780
ccc                                                                    783
```

        <210> 16
        <211> 801
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(801)
        <223> n = A,T,C or G

        <400> 16
```
gccccaattc cagctgccac accacccacg gtgactgcat tagttcggat gtcatacaaa      60
agctgattga agcaaccctc tacttttggg tcgtgagcct tttgcttggt gcaggtttca     120
ttggctgtgt tggtgacgtt gtcattgcaa cagaatgggg gaaaggcact gttctctttg     180
aagtagggtg agtcctcaaa atccgtatag ttggtgaagc cacagcactt gagcccttc      240
atggtggtgt tccacacttg agtgaagtct tcctgggaac cataatcttt cttgatggca     300
ggcactacca gcaacgtcag gaagtgctca gccattgtgg tgtacaccaa ggcgaccaca     360
gcagctgcaa cctcagcaat gaagatgagg aggaggatga agaagaacgt cncgagggca     420
cacttgctct ccgtcttagc accatagcag cccangaaac caagagcaaa gaccacaacg     480
ccngctgcga atgaaagaaa ntacccacgt tgacaaactg catggccact ggacgacagt     540
tggcccgaan atcttcagaa aagggatgcc ccatcgattg aacacccana tgcccactgc     600
cnacagggct gcnccncncn gaaagaatga gccattgaag aaggatcntc ntggtcttaa     660
tgaactgaaa ccntgcatgg tggcccctgt tcagggctct tggcagtgaa ttctganaaa     720
aaggaacngc ntnagccccc ccaaangana aaacacccca gggtgttgcc ctgaattggc     780
ggccaaggan ccctgcccn g                                                 801
```

        <210> 17
        <211> 740
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(740)
        <223> n = A,T,C or G

        <400> 17
```
gtgagagcca ggcgtccctc tgcctgccca ctcagtggca acacccggga gctgtttttgt     60
cctttgtgga gcctcagcag ttccctcttt cagaactcac tgccaagagc cctgaacagg     120
agccaccatg cagtgcttca gcttcattaa gaccatgatg atcctcttca atttgctcat     180
ctttctgtgt ggtgcagccc tgttggcagt gggcatctgg gtgtcaatcg atggggcatc     240
ctttctgaag atcttcgggc cactgtcgtc cagtgccatg cagtttgtca acgtgggcta     300
cttcctcatc gcagccggc ttgtggtctt tgctcttggt ttcctgggct gctatggtgc     360
taagacggag agcaagtgtg ccctcgtgac gttcttcttc atcctcctcc tcatcttcat     420
```

9

```
tgctgaagtt gcagctgctg tggtcgcctt ggtgtacacc acaatggctg aaccattcct     480
gacgttgctg gtantgcctg ccatcaanaa agattatggg ttcccaggaa aaattcactc     540
aantntggaa caccnccatg aaaagggctc caatttctgn tggcttcccc aactataccg     600
gaattttgaa agantcnccc tacttccaaa aaaaaanant tgcctttncc cccnttctgt     660
tgcaatgaaa acntcccaan acngccaatn aaaacctgcc cnnncaaaaa ggntcncaaa     720
caaaaaaant nnaagggttn                                                  740
```

        <210> 18
        <211> 802
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(802)
        <223> n = A,T,C or G

        <400> 18
```
ccgctggttg cgctggtcca gngnagccac gaagcacgtc agcatacaca gcctcaatca      60
caaggtcttc cagctgccgc acattacgca gggcaagagc ctccagcaac actgcatatg     120
ggatacactt tactttagca gccagggtga caactgagag gtgtcgaagc ttattcttct     180
gagcctctgt tagtggagga agattccggg cttcagctaa gtagtcagcg tatgtcccat     240
aagcaaacac tgtgagcagc cggaaggtag aggcaaagtc actctcagcc agctctctaa     300
cattgggcat gtccagcagt tctccaaaca cgtagacacc agnggcctcc agcacctgat     360
ggatgagtgt ggccagcgct gccccccttgg ccgacttggc taggagcaga aattgctcct    420
ggttctgccc tgtcaccttc acttccgcac tcatcactgc actgagtgtg ggggacttgg     480
gctcaggatg tccagagacg tggttccgcc ccctcnctta atgacaccgn ccanncaacc     540
gtcggctccc gccgantgng ttcgtcgtnc ctgggtcagg gtctgctggc cnctacttgc     600
aancttcgtc nggcccatgg aattcaccnc accggaactn gtangatcca ctnnttctat     660
aaccggncgc caccgcnnnt ggaactccac tcttnttncc tttacttgag ggttaaggtc     720
acccttnncg ttaccttggt ccaaaccntn ccntgtgtcg anatngtnaa tcnggnccna     780
tnccanccnc atangaagcc ng                                               802
```

        <210> 19
        <211> 731
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(731)
        <223> n = A,T,C or G

        <400> 19
```
cnaagcttcc aggtnacggg ccgcnaancc tgacccnagg tancanaang cagncngcgg      60
gagcccaccg tcacgngggng gngtctttat nggaggggggc ggagccacat cnctggacnt    120
cntgaccccca actccccncc ncncantgca gtgatgagtg cagaactgaa ggtnacgtgg     180
caggaaccaa gancaaannc tgctccnntc caagtcggcn nagggggcgg ggctggccac     240
gcncatccnt cnagtgctgn aaagcccccnn cctgtctact tgtttggaga acngcnnnga     300
catgcccagn gttanataac nggcngagag tnantttgcc tctcccttcc ggctgcgcan     360
cgngtntgct tagnggacat aacctgacta cttaactgaa cccnngaatc tnccncccct     420
ccactaagct cagaacaaaa aacttcgaca ccactcantt gtcacctgnc tgctcaagta     480
aagtgtaccc catncccaat gtntgctnga ngctctgncc tgcnttangt tcggtcctgg     540
gaagacctat caattnaagc tatgtttctg actgcctctt gctccctgna acaanncacc     600
cnncnntcca agggggggnc ggcccccaat ccccccaacc ntnaattnan tttanccccn     660
ccccnggcc cggcctttta cnancntcnn nnacngggna aaaccnnngc tttncccaac     720
nnaatccncc t                                                          731
```

10

```
<210> 20
<211> 754
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(754)
<223> n = A,T,C or G

<400> 20
tttttttttt tttttttttt taaaaacccc ctccattnaa tgnaaacttc cgaaattgtc      60
caacccctc ntccaaatnn ccntttccgg gnggggttc caaacccaan ttannttgg        120
annttaaatt aaatnttnnt tggnggnnna anccnaatgt nangaaagtt naacccanta     180
tnancttnaa tncctggaaa ccngtngntt ccaaaaatnt ttaacccta antccctccg      240
aaatngttna nggaaacccc aanttctcnt aaggttgttt gaaggntnaa tnaaaanccc     300
nnccaattgt ttttngccac gcctgaatta attggnttcc gntgttttcc nttaaaanaa     360
ggnnancccc ggttantnaa tcccccnnc cccaattata ccganttttt ttngaattgg      420
ganccncgg gaattaacgg ggnnnntccc tnttgggggg cnggnnmccc ccccntcggg      480
ggttngggnc aggncnnaat tgtttaaggg tccgaaaaat ccctccnaga aaaaaanctc     540
ccaggntgag nntngggttt nccccccccc canggccct ctcgnanagt tggggtttgg     600
ggggcctggg atttntnttc ccctnttncc tcccccccc ccngggganag aggttngngt     660
tttgntcnnc ggccccnccn aagancttttt ccganttnan ttaaatccnt gcctnggcga    720
agtccnttgn agggntaaan ggcccctnn cggg                                 754
```

```
<210> 21
<211> 755
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(755)
<223> n = A,T,C or G

<400> 21
atcancccat gaccccnaac nnggaccnc tcanccggnc nnncnaccnc cggccnatca      60
nngtnagnnc actncnnttn natcacnccc cnccnactac gcccncnanc cnacgcncta    120
nncanatncc actganngcg cgangtngan ngagaaanct nataccanag ncaccanacn     180
ccagctgtcc nanaangcct nnnatacngg nnnatccaat ntgnancctc cnaagtattn     240
nncnncanat gattttcctn anccgattac ccntncecc tanccctcc cccccaacna      300
cgaaggcnct ggnccnaagg nngcgncncc ccgctagntc ccnncaagt cncncncta      360
aactcanccn nattacncgc ttcntgagta tcactcccg aatctcaccc tactcaactc     420
aaaaanatcn gatacaaaat aatncaagcc tgnttatnac actntgactg ggtctctatt    480
ttagnggtcc ntnaancntc ctaatacttc cagtctncct tcnccaattt ccnaanggct    540
ctttcngaca gcatnttttg gttcccnntt gggttcttan ngaattgccc ttcntngaac    600
gggctcntct tttccttcgg ttancctggn ttcnnccggc cagttattat ttcccntttt    660
aaattcntnc cntttanttt tggcnttcna aaccccggc cttgaaaacg gcccctggt      720
aaaggttgt tttganaaaa tttttgtttt gttcc                                755
```

```
<210> 22
<211> 849
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(849)
```

```
        <223> n = A,T,C or G

        <400> 22
tttttttttt tttttangtg tngtcgtgca ggtagaggct tactacaant gtgaaacgt      60
acgctnggan taangcgacc cganttctag gannncccct aaaatcanac tgtgaagatn     120
atcctgnnna cggaanggtc accggnngat nntgctaggg tgnccnctcc cannncnttn     180
cataactcng nggccctgcc caccaccttc ggcggcccng ngnccgggcc cgggtcattn     240
gnnttaaccn cactnngcna ncggtttccn nccccnncng acccnggcga tccgggggtnc    300
tctgtcttcc cctgnagncn anaaantggg ccncggnccc ctttacccct nnacaagcca     360
cngccntcta nccncgccc cccctccant nnggggggact gccnanngct ccgttnctng     420
nnaccccnnn gggtncctcg gttgtcgant cnaccgnang ccanggattc cnaaggaagg     480
tgcgttnttg gcccctaccc ttcgctncgg nncacccttc ccgacnanga nccgctcccg     540
cncnncgnng cctcncctcg caacacccgc nctcntcngt ncggnnnccc ccccacccgc     600
nccctcncnc ngncgnancn ctccnccncc gtctcannca ccacccngcc ccgccaggcc     660
ntcanccacn ggnngacnng nagcncnntc gcnccgcgcn gcgncncct cgccncngaa      720
ctncntcngg ccantnncgc tcaanccnna cnaaacgccg ctgcgcggcc cgnagcgncc     780
ncctccncga gtcctcccgn cttccnaccc angnnttccn cgaggacacn nnaccccgcc     840
nncangcgg                                                            849

        <210> 23
        <211> 872
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(872)
        <223> n = A,T,C or G

        <400> 23
gcgcaaacta tacttcgctc gnactcgtgc gcctcgctnc tcttttcctc cgcaaccatg      60
tctgacnanc ccgattnggc ngatatcnan aagntcganc agtccaaact gantaacaca     120
cacacncnan aganaaatcc nctgccttcc anagtanacn attgaacnng agaaccangc     180
nggcgaatcg taatnaggcg tgcgccgcca atntgtcncc gtttattntn ccagcntcnc     240
ctnccnaccc tacntcttcn nagctgtcnn cgnaccccc naggtcggga     300
tcgggtttnn nntgaccgng cnnccctcc ccccntccat nacganccnc ccgcaccacc     360
nannqcncgc nccccgnnct cttcgccncc ctgtcctntn ccccctgtngc ctggcncngn     420
accgcattga ccctcgccnn ctncnngaaa ncgnanacgt ccgggttgnn annancgctg     480
tgggnnngcg tctgcnccgc gttccttccn ncnncttcca ccatcttcnt tacngggtct     540
ccncgccntc tcnnncacnc cctgggacgc tntcctntgc cccccttnac tcccccctt     600
cgncgtgncc cgnccccacc ntcatttnca nacgntcttc acaannncct ggntnnctcc     660
cnancngncn gtcanccnag ggaagggngg ggnnccnntg nttgacgttg nggngangtc     720
cgaanantcc tcnccntcan cnctacccct cgggcgnnct ctcngttncc aacttancaa     780
ntctcccccg ngngcncntc tcagcctcnc ccncccccnct ctctgcantg tnctctgctc     840
tnaccnntac gantnttcgn cnccctcttt cc                                  872

        <210> 24
        <211> 815
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(815)
        <223> n = A,T,C or G

        <400> 24
gcatgcaagc ttgagtattc tatagngtca cctaaatanc ttggcntaat catggtcnta      60
```

12

```
nctgncttcc  tgtgtcaaat  gtatacnaan  tanatatgaa  tctnatntga  caaganngta    120
tcntncatta  gtaacaantg  tnntgtccat  cctgtcngan  canattccca  tnnattncgn    180
cgcattcncn  gcncantatn  taatngggaa  ntcnnntnnn  ncaccnncat  ctatcntncc    240
gcnccctgac  tggnagagat  ggatnanttc  tnntntgacc  nacatgttca  tcttggattn    300
anannccccc  cgcngnccac  cggttngnng  cnagccnntc  ccaagacctc  ctgtggaggt    360
aacctgcgtc  aganncatca  aacntggaa   acccgcnccc  angtnnaagt  ngnnncanan    420
gatcccgtcc  aggnttnacc  atcccttcnc  agcgccccct  ttngtgcctt  anagngnagc    480
gtgtccnanc  cnctcaacat  ganacgcgcc  agnccanccg  caattnggca  caatgtcgnc    540
gaaccccta   gggggantna  tncaaanccc  caggattgtc  cncncangaa  atcccncanc    600
cccnccctac  ccnnctttgg  gacngtgacc  aantcccgga  gtnccagtcc  ggccngnctc    660
ccccaccggt  nnccntgggg  gggtgaanct  cngnntcanc  cngncgaggn  ntcgnaagga    720
accggncctn  ggncgaanng  ancnntcnga  agngccncnt  cgtataaccc  ccctcncca    780
nccnacngnt  agntcccccc  cngggtncgg  aangg                                 815
```

```
<210> 25
<211> 775
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(775)
<223> n = A,T,C or G

<400> 25
ccgagatgtc  tcgctccgtg  gccttagctg  tgctcgcgct  actctctctt  tctggcctgg    60
aggctatcca  gcgtactcca  aagattcagg  tttactcacg  tcatccagca  gagaatggaa    120
agtcaaattt  cctgaattgc  tatgtgtctg  ggtttcatcc  atccgacatt  gaanttgact    180
tactgaagaa  tgganagaga  attgaaaaag  tggagcattc  agacttgtct  ttcagcaagg    240
actggtcttt  ctatctcntg  tactacactg  aattcacccc  cactgaaaaa  gatgagtatg    300
cctgccgtgt  gaaccatgtg  actttgtcac  agcccaagat  agttaagtgg  gatcgagaca    360
tgtaagcagn  cnncatggaa  gtttgaagat  gccgcatttg  gattggatga  attccaaatt    420
ctgcttgctt  gcnttttaat  antgatatgc  ntatacaccc  taccctttat  gnccccaaat    480
tgtaggggtt  acatnantgt  tcncntngga  catgatcttc  ctttataant  ccnccnttcg    540
aattgcccgt  cncccngttn  ngaatgtttc  cnnaaccacg  gttggctccc  ccaggtcncc    600
tcttacggaa  gggcctgggc  cnctttncaa  ggttggggga  accnaaaatt  tcncttntgc    660
ccnccnccca  cnntcttgng  nncncanttt  ggaacccttc  cnattcccct  tggcctcnna    720
nccttnncta  anaaaacttn  aaancgtngc  naaannttn   acttcccccc  ttacc         775
```

```
<210> 26
<211> 820
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(820)
<223> n = A,T,C or G

<400> 26
anattantac  agtgtaatct  tttcccagag  gtgtgtanag  ggaacggggc  ctagaggcat    60
cccanagata  ncttatanca  acagtgcttt  gaccaagagc  tgctgggcac  atttcctgca    120
gaaaaggtgg  cggtccccat  cactcctcct  ctcccatagc  catcccagag  gggtgagtag    180
ccatcangcc  ttcggtggga  gggagtcang  gaaacaacan  accacagagc  anacagacca    240
ntgatgacca  tgggcgggag  cgagcctctt  ccctgnaccg  gggtggcana  nganagccta    300
nctgaggggt  cacactataa  acgttaacga  ccnagatnan  cacctgcttc  aagtgcaccc    360
ttcctacctg  acnaccagng  accnnnnaact gcngcctggg  dacagcnctg  ggancagcta    420
acnnagcact  cacctgcccc  cccatggccg  tncgcntccc  tggtcctgnc  aagggaagct    480
```

13

```
ccctgttgga attncgggga naccaaggga nccccctcct ccanctgtga aggaaaaann      540
gatggaattt tncccttccg gccnntcccc tcttccttta cacgccccct nntactcntc      600
tccctctntt ntcctgcncc acttttnacc ccnnnatttc ccttnattga tcggannctn      660
ganattccac tnncgcctnc cntcnatcng naanacnaaa nactntctna cccngggggat     720
gggnncctcg ntcatcctct cttttctnct accnccnntt ctttgcctct ccttngatca      780
tccaaccntc gntggccntn cccccccnnn tcctttnccc                            820
```

        <210> 27
        <211> 818
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(818)
        <223> n = A,T,C or G

        <400> 27
```
tctgggtgat ggcctcttcc tcctcaggga cctctgactg ctctgggcca aagaatctct       60
tgtttcttct ccgagcccca ggcagcggtg attcagccct gcccaacctg attctgatga      120
ctgcggatgc tgtgacggac ccaaggggca aatagggtcc cagggtccag ggaggggcgc      180
ctgctgagca cttccgcccc tcaccctgcc cagccccctgc catgagctct gggctgggtc     240
tccgcctcca gggttctgct cttccangca ngccancaag tggcgctggg ccacactggc      300
ttcttcctgc cccntccctg gctctgantc tctgtcttcc tgtcctgtgc angcnccttg      360
gatctcagtt tccctcnctc anngaactct gtttctgann tcttcantta actntgantt      420
tatnaccnan tggnctgtnc tgtcnnactt taatgggccn gaccggctaa tccctccctc      480
nctcccttcc anttcnnnna accngcttnc cntcntctcc ccntancccg ccnggggaanc     540
ctcctttgcc ctnaccangg gccnnnaccg cccntnnctn ggggggcnng gtnnctcnc       600
ctgntnnccc cnctcncnnt tncctcgtcc cnncnncgcn nngcannttc ncngtcccnn      660
tnnctcttcn ngtntcgnaa ngntcncntn tnnnngncn ngntnntcn tccctctcnc        720
cnnntgnang tnnttnnnnc ncngnnccc nnnncnnnnn nggnnntnnn tctncncngc        780
cccnncccc ngnattaagg cctccnntct ccggccnc                              818
```

        <210> 28
        <211> 731
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(731)
        <223> n = A,T,C or G

        <400> 28
```
aggaagggcg gagggatatt gtangggatt gagggatagg agnataangg gggaggtgtg       60
tcccaacatg anggtgnngt tctcttttga angagggttg ngtttttann ccnggtgggt      120
gattnaaccc cattgtatgg agnnaaaggn tttnaggat ttttcggctc ttatcagtat       180
ntanattcct gtnaatcgga aaatnatntt tcnncggaa aatnttgctc ccatccgnaa       240
attnctcccg ggtagtgcat nttnggggn cngccangtt tcccaggctg ctanaatcgt       300
actaaagntt naagtgggan tncaaatgaa aacctnncac agagnatccn tacccgactg      360
tnnnttncct tcgccctntg actctgcnng agcccaatac ccnngngnat gtcnnccngn      420
nnngcgncnc tgaaannnnc tcgnggctnn gancatcang gggtttcgca tcaaaagcnn      480
cgtttcncat naaggcactt tngcctcatc caaccnctng ccctcnncca tttngccgtc      540
nggttcncct acgctnnntg cnccctnnntn ganattttnc ccgcctnggg naancctcct     600
gnaatgggta gggncttntc ttttnaccnn gnggtntact aatcnnctnc acgcntnctt      660
tctcnacccc cccccttttt caatcccanc ggcnaatggg gtctccccnn cganggggggg     720
nnncccannc c                                                          731
```

14

```
<210> 29
<211> 822
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(822)
<223> n = A,T,C or G

<400> 29
actagtccag tgtggtggaa ttccattgtg ttggggncnc ttctatgant antnttagat        60
cgctcanacc tcacanccte ccnacnangc ctataangaa nannaataga nctgtncnnt       120
atntntacnc tcatanncct cnnnacccac tccctcttaa cccntactgt gcctatngcn       180
tnnctantct ntgccgcctn cnanccaccn gtgggccnac cncnngnatt ctcnatctcc       240
tcnccatntn gcctananta ngtncatacc ctatacctac nccaatgcta nnnctaancn       300
tccatnantt annntaacta ccactgacnt ngactttcnc atnanctcct aatttgaatc       360
tactctgact cccacngcct annnattagc ancntccccc nacnatntct caaccaaatc       420
ntcaacaacc tatctanctg ttcnccaacc nttncctccg atccccnnac aaccccccte       480
ccaaataccc nccacctgac ncctaacccn caccatcccg gcaagccnan ggncatttan       540
ccactggaat cacnatngga naaaaaaaac ccnaactctc tancncnnat ctccctaana       600
aatnctcctn naatttactn ncantnccat caancccacn tgaaacnaaa cccctgtttt       660
tanatccctt ctttcgaaaa ccnacccttt annncccaac ctttngggcc cccccnctnc       720
ccnaatgaag gncncccaat cnangaaacg nccntgaaaa ancnaggcna anannntccg       780
canatcctat cccttanttn ggggnccctt ncccngggcc cc                         822
```

```
<210> 30
<211> 787
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(787)
<223> n = A,T,C or G

<400> 30
cggccgcctg ctctggcaca tgcctcctga atggcatcaa aagtgatgga ctgcccattg        60
ctagagaaga ccttctctcc tactgtcatt atggagccct gcagactgag ggctcccctt       120
gtctgcagga tttgatgtct gaagtcgtgg agtgtggctt ggagctcctc atctacatna       180
gctggaagcc ctggagggcc tctctcgcca gcctcccccct tctctccacg ctctccangg       240
acaccagggg ctccaggcag cccattattc ccagnangac atggtgtttc tccacgcgga       300
cccatggggc ctgnaaggcc agggtctcct ttgacaccat ctctcccgtc ctgcctggca       360
ggccgtggga tccactantt ctanaacggn cgccaccncg gtgggagctc cagcttttgt       420
tccnttaat gaaggttaat tgcncgcttg gcgtaatcat nggtcanaac tntttcctgt       480
gtgaaattgt ttntcccctc ncnattccnc ncnacatacn aacccggaan cataaagtgt       540
taaagcctgg gggtngcctn nngaatnaac tnaactcaat taattgcgtt ggctcatggc       600
ccgctttccn ttcnggaaaa ctgtcntccc ctgcnttnnt gaatcggcca cccccccnggg       660
aaaagcggtt tgcnttttng ggggntcctt ccncttcccc cctcnctaan ccctncgcct       720
cggtcgttnc nggtngcggg gaangggnat nnnctcccnc naagggggng agnnngntat       780
ccccaaa                                                                787
```

```
<210> 31
<211> 799
<212> DNA
<213> Homo sapien

<220>
```

15

<221> misc_feature
<222> (1)...(799)
<223> n = A,T,C or G

<400> 31
```
ttttttttttt  tttttttggc  gatgctactg  tttaattgca  ggaggtgggg  gtgtgtgtac   60
catgtaccag  ggctattaga  agcaagaagg  aaggagggag  ggcagagcgc  cctgctgagc  120
aacaaaggac  tcctgcagcc  ttctctgtct  gtctcttggc  gcaggcacat  ggggaggcct  180
cccgcagggt  ggggggccacc  agtccagggg  tgggagcact  acangggtg   ggagtgggtg  240
gtggctggtn  cnaatggcct  gncacanatc  cctacgattc  ttgacacctg  gatttcacca  300
ggggaccttc  tgttctccca  nggnaacttc  ntnnatctcn  aaagaacaca  actgtttctt  360
cngcanttct  ggctgttcat  ggaaagcaca  ggtgtccnat  ttnggctggg  acttggtaca  420
tatggttccg  gcccacctct  cccntcnaan  aagtaattca  ccccccccccn  ccntctnttg  480
cctgggcccct  taantaccca  caccggaact  canttantta  ttcatcttng  gntgggcttg  540
ntnatcnccn  cctgaangcg  ccaagttgaa  aggccacgcc  gtnccnctc   cccatagnan  600
nttttnncnt  canctaatgc  cccccnggc   aacnatccaa  tcccccccccn  tggggccccc  660
agcccanggc  ccccgnctcg  ggnnnccngn  cncgnantcc  ccaggntctc  ccantcngnc  720
ccnnngcncc  cccgcacgca  gaacanaagg  ntngagccnc  cgcannnnnn  nggtnncnac  780
ctcgcccccc  ccnncgnng                                                  799
```

<210> 32
<211> 789
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(789)
<223> n = A,T,C or G

<400> 32
```
ttttttttttt  ttttttttttt  ttttttttttt  ttttttttttt  ttttttttttt  ttttttttttt   60
ttttnccnag  ggcaggttta  ttgacaacct  cncgggacac  aancaggctg  gggacaggac  120
ggcaacaggc  tccggcggcg  gcggcggcgg  ccctacctgc  ggtaccaaat  ntgcagcctc  180
cgctcccgct  tgatnttcct  ctgcagctgc  aggatgccnt  aaaacagggc  ctcggccntn  240
ggtgggcacc  ctgggatttn  aatttccacg  ggcacaatgc  ggtcgcancc  cctcaccacc  300
nattaggaat  agtggtntta  cccnccnccg  ttggcncact  ccccntggaa  accacttntc  360
gcggctccgg  catctggtct  taaaccttgc  aaacnctggg  gccctctttt  tggttantnt  420
nccngccaca  atcatnactc  agactggcnc  gggctggccc  caaaaaancn  ccccaaaacc  480
ggnccatgtc  ttnncggggt  tgctgcnatn  tncatcacct  cccgggcnca  ncaggncaac  540
ccaaaagttc  ttgnggcccn  caaaaaanct  ccgggggggnc  ccagtttcaa  caaagtcatc  600
ccccttggcc  cccaaatcct  ccccccgntt  nctgggtttg  ggaacccacg  cctctnnctt  660
tggnnggcaa  gntggntccc  ccttcgggcc  cccggtgggc  ccnnctctaa  ngaaaacncc  720
ntcctnnnca  ccatcccccc  nngnnacgnc  tancaangna  tcccttttttt  tanaaacggg  780
cccccccncg                                                            789
```

<210> 33
<211> 793
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(793)
<223> n = A,T,C or G

<400> 33
```
gacagaacat  gttggatggt  ggagcacctt  tctatacgac  ttacaggaca  gcagatgggg   60
```

16

```
aattcatggc tgttggagca atanaacccc agttctacga gctgctgatc aaaggacttg    120
gactaaagtc tgatgaactt cccaatcaga tgagcatgga tgattggcca gaaatgaana    180
agaagtttgc agatgtattt gcaaagaaga cgaaggcaga gtggtgtcaa atctttgacg    240
gcacagatgc ctgtgtgact ccggttctga cttttgagga ggttgttcat catgatcaca    300
acaangaacg gggctcgttt atcaccantg aggagcagga cgtgagcccc cgccctgcac    360
ctctgctgtt aaacacccca gccatccctt ctttcaaaag ggatccacta cttctagagc    420
ggncgccacc gcggtggagc tccagctttt gttcccttta gtgagggtta attgcgcgct    480
tggcgtaatc atggtcatan ctgtttcctg tgtgaaattg ttatccgctc acaattccac    540
acaacatacg anccggaagc atnaaatttt aaagcctggn ggtngcctaa tgantgaact    600
nactcacatt aattggcttt gcgctcactg cccgctttcc agtccggaaa acctgtcctt    660
gccagctgcc nttaatgaat cnggccaccc cccggggaaa aggcngtttg cttnttgggg    720
cgcncttccc gctttctcgc ttcctgaant ccttcccccc ggtctttcgg cttgcggcna    780
acggtatcna cct                                                       793
```

```
        <210> 34
        <211> 756
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(756)
        <223> n = A,T,C or G

        <400> 34
gccgcgaccg gcatgtacga gcaactcaag ggcgagtgga accgtaaaag ccccaatctt    60
ancaagtgcg gggaanagct gggtcgactc aagctagttc ttctggagct caacttcttg    120
ccaaccacag ggaccaagct gaccaaacag cagctaattc tggcccgtga catactggag    180
atcggggccc aatggagcat cctacgcaan gacatcccct ccttcgagcg ctacatggcc    240
cagctcaaat gctactactt tgattacaan gagcagctcc ccgagtcagc ctatatgcac    300
cagctcttgg gcctcaacct cctcttcctg ctgtcccaga accgggtggc tgantccac     360
acgganttgg ancggctgcc tgcccaanga catacanacc aatgtctaca tcnaccacca    420
gtgtcctgga gcaatactga tgganggcag ctaccncaaa gtnttcctgg ccnagggtaa    480
catcccccgc cgagagctac accttcttca ttgacatcct gctcgacact atcagggatg    540
aaaatcgcng ggttgctcca gaaaggctnc aanaaanatcc ttttcnctga aggccccgg    600
atncnctagt nctagaatcg gcccgccatc gcggtgganc ctccaacctt tcgttnccct    660
ttactgaggg ttnattgccg cccttggcgt tatcatggtc acnccngttn cctgtgttga    720
aattnttaac cccccacaat tccacgccna cattng                             756
```

```
        <210> 35
        <211> 834
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(834)
        <223> n = A,T,C or G

        <400> 35
ggggatctct anatcnacct gnatgcatgg ttgtcggtgt ggtcgctgtc gatgaanatg    60
aacaggatct tgcccttgaa gctctcggct gctgtnttta agttgctcag tctgccgtca    120
tagtcagaca cnctcttggg caaaaaacan caggatntga gtcttgattt cacctccaat    180
aatcttcngg gctgtctgct cggtgaactc gatgacnang gcagctggt  tgtgtntgat    240
aaantccanc angttctcct tggtgacctc cccttcaaag ttgttccggc cttcatcaaa    300
cttctnnaan angannancc cancttttgtc gagctggnat ttgganaaca cgtcactgtt    360
ggaaactgat cccaaatggt atgtcatcca tcgcctctgc tgcctgcaaa aaacttgctt    420
ggcncaaatc cgactccccn tccttgaaag aagccnatca cacccccctc cctggactcc    480
```

17

```
nncaangact ctnccgctnc cccntccnng cagggttggt ggcannccgg gcccntgcgc        540
ttcttcagcc agttcacnat nttcatcagc ccctctgcca gctgttntat tccttggggg        600
ggaanccgtc tctcccttcc tgaannaact ttgaccgtng gaatagccgc gcntcnccnt        660
acntnctggg ccgggttcaa antccctccn ttgncnntcn cctcgggcca ttctggattt        720
nccnaacttt ttccttcccc cnccccncgg ngtttggntt tttcatnggg ccccaactct        780
gctnttggcc antccnctgg gggcntntan cnccccctnt ggtcccntng ggcc             834
```

```
        <210> 36
        <211> 814
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(814)
        <223> n = A,T,C or G

        <400> 36
cggncgcttt ccngccgcgc cccgtttcca tgacnaaggc tcccttcang ttaaatacnn        60
cctagnaaac attaatgggt tgctctacta atacatcata cnaaccagta agcctgccca       120
naacgccaac tcaggccatt cctaccaaag gaagaaaggc tggtctctcc accccctgta       180
ggaaaggcct gccttgtaag acaccacaat ncggctgaat ctnaagtctt gtgttttact       240
aatggaaaaa aaaaataaac aanaggtttt gttctcatgg ctgcccaccg cagcctggca       300
ctaaaacanc ccagcgctca cttctgcttg ganaaatatt ctttgctctt ttggacatca       360
ggcttgatgg tatcactgcc acntttccac ccagctgggc ncccttcccc catntttgtc       420
antganctgg aaggcctgaa ncttagtctc caaaagtctc ngcccacaag accggccacc       480
aggggangtc ntttncagtg gatctgccaa anantaccan tatcatcnnt gaataaaaag       540
gccctgaac ganatgcttc cancancctt taagacccat aatcctngaa ccatggtgcc        600
cttccggtct gatccnaaag gaatgttcct gggtcccant ccctcctttg ttncttacgt       660
tgtnttggac ccntgctngn atnacccaan tganatcccc ngaagcaccc tnccctggc        720
atttganttt cntaaattct ctgccctacn nctgaaagca cnattccctn ggcnccnaan       780
ggngaactca agaaggtctn ngaaaaacca cncn                                   814
```

```
        <210> 37
        <211> 760
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(760)
        <223> n = A,T,C or G

        <400> 37
gcatgctgct cttcctcaaa gttgttcttg ttgccataac aaccaccata ggtaaagcgg        60
gcgcagtgtt cgctgaaggg gttgtagtac cagcgcggga tgctctcctt gcagagtcct       120
gtgtctggca ggtccacgca atgccctttg tcactgggga aatggatgcg ctggagctcg       180
tcnaanccac tcgtgtattt ttcacangca gcctcctccg aagcntccgg gcagttgggg       240
gtgtcgtcac actccactaa actgtcgatn cancagccca ttgctgcagc ggaactgggt       300
gggctgacag gtgccagaac acactggatn ggcctttcca tggaagggcc tgggggaaat       360
cncctnancc caaactgcct ctcaaaggcc accttgcaca ccccgacagg ctagaaatgc       420
actcttcttc ccaaaggtag ttgttcttgt tgcccaagca ncctccanca aaccaaaanc       480
ttgcaaaatc tgctccgtgg gggtcatnnn taccanggtt ggggaaanaa acccggcngn       540
ganccncctt gtttgaatgc naaggnaata atcctcctgt cttgcttggg tggaanagca       600
caattgaact gttaacnttg ggccgngttc cnctngggtg gtctgaaact aatcaccgtc       660
actggaaaaa ggtangtgcc ttccttgaat tcccaaantt ccccctngntt tgggtnnttt      720
ctcctctncc ctaaaaatcg tnttcccccc ccntanggcg                             760
```

18

```
<210> 38
<211> 724
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(724)
<223> n = A,T,C or G

<400> 38
ttttttttttt ttttttttttt ttttttttttt tttttaaaaa ccccctccat tgaatgaaaa          60
cttccnaaat tgtccaaccc cctcnnccaa atnnccattt ccggggggggg gttccaaacc          120
caaattaatt ttgganttta aattaaatnt tnattngggg aanaanccaa atgtnaagaa          180
aatttaaccc attatnaact taaatncctn gaaacccntg gnttccaaaa attttttaacc          240
cttaaatccc tccgaaattg ntaanggaaa accaaattcn cctaaggctn tttgaaggtt          300
ngatttaaac ccccttnant tnttttnacc cnngnctnaa ntatttngnt tccggtgttt          360
tcctnttaan cntnggtaac tcccgntaat gaannnccct aanccaatta aaccgaattt          420
tttttgaatt ggaaattccn ngggaattna ccggggtttt tcccntttgg gggccatncc          480
cccnctttcg gggtttgggn ntaggttgaa tttttnnang ncccaaaaaa nccccccaana          540
aaaaaactcc caagnnttaa ttngaatntc cccccttccca ggccttttgg gaaaggnggg          600
tttntggggg ccngggganttt cnttcccccn ttnccncccc ccccccnggt aaanggttat          660
ngnntttggt ttttgggccc cttnanggac cttccggatn gaaattaaat ccccgggncg          720
gccg                                                                        724


<210> 39
<211> 751
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(751)
<223> n = A,T,C or G

<400> 39
ttttttttttt tttttctttg ctcacatttta attttttattt tgattttttt taatgctgca          60
caacacaata tttatttcat ttgtttcttt tatttcattt tatttgtttg ctgctgctgt          120
tttatttatt tttactgaaa gtgagaggga acttttgtgg ccttttttttcc ttttttctgta          180
ggccgcctta agctttctaa atttggaaca tctaagcaag ctgaanggaa aaggggggttt          240
cgcaaaatca ctcgggggaa nggaaaggtt gctttgttaa tcatgcccta tggtgggtga          300
ttaactgctt gtacaattac ntttcacttt taattaattg tgctnaangc tttaattana          360
cttgggggtt ccctccccan accaaccccn ctgacaaaaa gtgccngccc tcaaatnatg          420
tcccggcnnt cnttgaaaca cacngcngaa ngttctcatt ntccccncnc caggtnaaaa          480
tgaagggtta ccatntttaa cnccacctcc acntggcnnn gcctgaatcc tcnaaaancn          540
ccctcaancn aattnctnng ccccggtcnc gcntnngtcc cnccccgggct ccgggaantn          600
cacccccnga annncnntnnc naacnaaatt ccgaaaatat tcccnntcnc tcaattcccc          660
cnnagactnt cctcnncnan cncaattttc ttttnntcac gaacncgnnc cnnaaaatgn          720
nnnncncctc cnctngtccn naatcnccan c                                          751


<210> 40
<211> 753
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(753)
```

19

```
    <223> n = A,T,C or G

    <400> 40
gtggtatttt ctgtaagatc aggtgttcct ccctcgtagg tttagaggaa acaccctcat        60
agatgaaaac cccccgaga cagcagcact gcaactgcca agcagccggg gtaggagggg        120
cgccctatgc acagctgggc ccttgagaca gcagggcttc gatgtcaggc tcgatgtcaa        180
tggtctggaa gcggcggctg tacctgcgta ggggcacacc gtcagggccc accaggaact        240
tctcaaagtt ccaggcaacn tcgttgcgac acaccggaga ccaggtgatn agcttggggt        300
cggtcataan cgcggtggcg tcgtcgctgg gagctggcag ggcctcccgc aggaaggcna        360
ataaaaggtg cgcccccgca ccgttcanct cgcacttctc naanaccatg angttggggct        420
cnaacccacc accannccgg acttccttga nggaattccc aaatctcttc gntcttgggc        480
ttctnctgat gccctanctg gttgcccngn atgccaanca ncccaancc ccgggggtcct        540
aaancacccn cctcctcntt tcatctgggt tnttntcccc ggaccntggt tcctctcaag        600
ggancccata tctcnaccan tactcaccnt nccccccnt gnnacccanc cttctanngn        660
ttcccncccg ncctctggcc cntcaaanan gcttncacna cctgggtctg ccttcccccc        720
tncctatct gnaccccncn tttgtctcan tnt                                    753

    <210> 41
    <211> 341
    <212> DNA
    <213> Homo sapien

    <400> 41
actatatcca tcacaacaga catgcttcat cccatagact tcttgacata gcttcaaatg        60
agtgaaccca tccttgattt atatacatat atgttctcag tattttggga gcctttccac        120
ttctttaaac cttgttcatt atgaacactg aaaataggaa tttgtgaaga gttaaaaagt        180
tatagcttgt ttacgtagta agtttttgaa gtctacattc aatccagaca cttagttgag        240
tgttaaactg tgattttaa aaaatatcat ttgagaatat tctttcagag gtattttcat        300
ttttactttt tgattaattg tgttttatat attagggtag t                          341

    <210> 42
    <211> 101
    <212> DNA
    <213> Homo sapien

    <400> 42
acttactgaa tttagttctg tgctcttcct tatttagtgt tgtatcataa atactttgat        60
gtttcaaaca ttctaaataa ataattttca gtggcttcat a                          101

    <210> 43
    <211> 305
    <212> DNA
    <213> Homo sapien

    <400> 43
acatctttgt tacagtctaa gatgtgttct taaatcacca ttccttcctg gtcctcaccc        60
tccagggtgg tctcacactg taattagagc tattgaggag tctttacagc aaattaagat        120
tcagatgcct tgctaagtct agagttctag agttatgttt cagaaagtct aagaaaccca        180
cctcttgaga ggtcagtaaa gaggacttaa tatttcatat ctacaaaatg accacaggat        240
tggatacaga acgagagtta tcctggataa ctcagagctg agtacctgcc cggggggccgc        300
tcgaa                                                                  305

    <210> 44
    <211> 852
    <212> DNA
    <213> Homo sapien

    <220>
```

20

```
        <221> misc_feature
        <222> (1)...(852)
        <223> n = A,T,C or G

        <400> 44
acataaatat cagagaaaag tagtctttga aatatttacg tccaggagtt ctttgtttct          60
gattatttgg tgtgtgtttt ggtttgtgtc caaagtattg gcagcttcag tttttcatttt        120
ctctccatcc tcgggcattc ttcccaaatt tatataccag tcttcgtcca tccacacgct         180
ccagaatttc tcttttgtag taatatctca tagctcggct gagctttttca taggtcatgc        240
tgctgttgtt cttctttta ccccatagct gagccactgc ctctgatttc aagaacctga         300
agacgccctc agatcggtct tcccatttta ttaatcctgg gttcttgtct gggttcaaga         360
ggatgtcgcg gatgaattcc cataagtgag tccctctcgg gttgtgcttt ttggtgtggc        420
acttggcagg ggggtcttgc tccttttttca tatcaggtga ctctgcaaca ggaaggtgac       480
tggtggttgt catggagatc tgagcccggc agaaagtttt gctgtccaac aaatctactg        540
tgctaccata gttggtgtca tataaatagt tctngtcttt ccaggtgttc atgatggaag        600
gctcagtttg ttcagtcttg acaatgacat tgtgtgtgga ctggaacagg tcactactgc        660
actggccgtt ccacttcaga tgctgcaagt tgctgtagag gagntgcccc gccgtccctg        720
ccgcccgggt gaactcctgc aaactcatgc tgcaaaggtg ctcgccgttg atgtcgaact         780
cntggaaagg gatacaattg gcatccagct ggttggtgtc caggaggtga tggagccact        840
cccacacctg gt                                                            852
```

```
        <210> 45
        <211> 234
        <212> DNA
        <213> Homo sapien

        <400> 45
acaacagacc cttgctcgct aacgacctca tgctcatcaa gttggacgaa tccgtgtccg          60
agtctgacac catccggagc atcagcattg cttcgcagtg ccctaccgcg gggaactctt        120
gcctcgtttc tggctggggt ctgctggcga acggcagaat gcctaccgtg ctgcagtgcg        180
tgaacgtgtc ggtggtgtct gaggaggtct gcagtaagct ctatgacccg ctgt             234
```

```
        <210> 46
        <211> 590
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(590)
        <223> n = A,T,C or G

        <400> 46
actttttatt taaatgttta taaggcagat ctatgagaat gatagaaaac atggtgtgta          60
atttgatagc aatattttgg agattacaga gttttagtaa ttaccaatta cacagttaaa        120
aagaagataa tatattccaa gcanatacaa aatatctaat gaaagatcaa ggcaggaaaa        180
tgantataac taattgacaa tggaaaatca attttaatgt gaattgcaca ttatcctta        240
aaagctttca aaanaaanaa ttattgcagt ctanttaatt caaacagtgt taaatggtat       300
caggataaan aactgaaggg canaaagaat taattttcac ttcatgtaac ncacccanat        360
ttacaatggc ttaaatgcan ggaaaaagca gtggaagtag ggaagtantc aaggtctttc        420
tggtctctaa tctgccttac tctttgggtg tggctttgat cctctggaga cagctgccag        480
ggctcctgtt atatccacaa tcccagcagc aagatgaagg gatgaaaaag gacacatgct       540
gccttccttt gaggagactt catctcactg gccaacactc agtcacatgt                  590
```

```
        <210> 47
        <211> 774
        <212> DNA
        <213> Homo sapien
```

21

```
        <220>
        <221> misc_feature
        <222> (1)...(774)
        <223> n = A,T,C or G

        <400> 47 ·
acaagggggc ataatgaagg agtgggggana gattttaaag aaggaaaaaa aacgaggccc      60
tgaacagaat tttcctgnac aacggggctt caaaataatt ttcttgggga ggttcaagac     120
gcttcactgc ttgaaactta aatggatgtg ggacanaatt ttctgtaatg accctgaggg     180
cattacagac gggactctgg gaggaaggat aaacagaaag gggacaaagg ctaatcccaa     240
aacatcaaag aaaggaaggt ggcgtcatac ctcccagcct acacagttct ccaggggctct     300
cctcatccct ggaggacgac agtggaggaa caactgacca tgtccccagg ctcctgtgtg     360
ctggctcctg gtcttcagcc cccagctctg gaagcccacc ctctgctgat cctgcgtggc     420
ccacactcct tgaacacaca tccccaggtt atattcctgg acatggctga acctcctatt     480
cctacttccg agatgccttg ctccctgcag cctgtcaaaa tcccactcac cctccaaacc     540
acggcatggg aagcctttct gacttgcctg attactccag catcttggaa caatccctga     600
ttccccactc cttagaggca agatagggtg gttaagagta gggctggacc acttggagcc     660
aggctgctgg cttcaaattn tggctcattt acgagctatg ggaccttggg caagtnatct     720
tcacttctat gggcntcatt ttgttctacc tgcaaaatgg gggataataa tagt          774

        <210> 48
        <211> 124
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(124)
        <223> n = A,T,C or G

        <400> 48
canaaattga aattttataa aaaggcattt ttctcttata tccataaaat gatataattt      60
ttgcaantat anaaatgtgt cataaattat aatgttcctt aattacagct caacgcaact     120
tggt                                                                  124

        <210> 49
        <211> 147
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(147)
        <223> n = A,T,C or G

        <400> 49
gccgatgcta ctattttatt gcaggaggtg ggggtgtttt tattattctc tcaacagctt      60
tgtggctaca ggtggtgtct gactgcatna aaaanttttt tacgggtgat tgcaaaaatt     120
ttagggcacc catatcccaa gcantgt                                         147

        <210> 50
        <211> 107
        <212> DNA
        <213> Homo sapien

        <400> 50
acattaaatt aataaaagga ctgttggggt tctgctaaaa cacatggctt gatatattgc      60
```

22

```
atggtttgag gttaggagga gttaggcata tgttttggga gaggggt                    107

        <210> 51
        <211> 204
        <212> DNA
        <213> Homo sapien

        <400> 51
gtcctaggaa gtctagggga cacacgactc tggggtcacg gggccgacac acttgcacgg       60
cgggaaggaa aggcagagaa gtgacaccgt caggggggaaa tgacagaaag gaaaatcaag     120
gccttgcaag gtcagaaagg ggactcaggg cttccaccac agccctgccc cacttggcca     180
cctcccttt gggaccagca atgt                                              204

        <210> 52
        <211> 491
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(491)
        <223> n = A,T,C or G

        <400> 52
acaaagataa catttatctt ataacaaaaa tttgatagtt ttaaaggtta gtattgtgta       60
gggtattttc caaaagacta aagagataac tcaggtaaaa agttagaaat gtataaaaca     120
ccatcagaca ggttttttaaa aaacaacata ttacaaaatt agacaatcat ccttaaaaaa     180
aaaacttctt gtatcaattt ctttttgttca aaatgactga cttaantatt tttaaatatt     240
tcanaaacac ttcctcaaaa attttcaana tggtagcttt canatgtncc ctcagtccca     300
atgttgctca gataaataaa tctcgtgaga acttaccacc caccacaagc tttctggggc     360
atgcaacagt gtcttttctt tncttttttct ttttttttttt ttacaggcac agaaactcat     420
caattttatt tggataacaa agggtctcca aattatattg aaaaataaat ccaagttaat     480
atcactcttg t                                                           491

        <210> 53
        <211> 484
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(484)
        <223> n = A,T,C or G

        <400> 53
acataattta gcagggctaa ttaccataag atgctattta ttaanaggtn tatgatctga       60
gtattaacag ttgctgaagt ttggtatttt tatgcagcat tttcttttttg ctttgataac     120
actacagaac ccttaaggac actgaaaatt agtaagtaaa gttcagaaac attagctgct     180
caatcaaatc tctacataac actatagtaa ttaaaacgtt aaaaaaaagt gttgaaatct     240
gcactagtat anaccgctcc tgtcaggata anactgcttt ggaacagaaa gggaaaaanc     300
agctttgant ttctttgtgc tgatangagg aaaggctgaa ttaccttgtt gcctctccct     360
aatgattggc aggtcnggta aatnccaaaa catattccaa ctcaacactt cttttccncg     420
tanctttgant ctgtgtattc caggancagg cggatggaat gggccagccc ncggatgttc     480
cant                                                                    484

        <210> 54
        <211> 151
        <212> DNA
```

23

```
        <213> Homo sapien

        <400> 54
actaaacctc gtgcttgtga actccataca gaaaacggtg ccatccctga acacggctgg        60
ccactgggta tactgctgac aaccgcaaca acaaaaacac aaatccttgg cactggctag      120
tctatgtcct ctcaagtgcc tttttgtttg t                                      151

        <210> 55
        <211> 91
        <212> DNA
        <213> Homo sapien

        <400> 55
acctggcttg tctccgggtg gttcccggcg cccccacgg tccccagaac ggacactttc        60
gccctccagt ggatactcga gccaaagtgg t                                       91

        <210> 56
        <211> 133
        <212> DNA
        <213> Homo sapien

        <400> 56
ggcggatgtg cgttggttat atacaaatat gtcattttat gtaagggact tgagtatact        60
tggattttttg gtatctgtgg gttgggggga cggtccagga accataccc catggatacc      120
aagggacaac tgt                                                           133

        <210> 57
        <211> 147
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(147)
        <223> n = A,T,C or G

        <400> 57
actctggaga acctgagccg ctgctccgcc tctgggatga ggtgatgcan gcngtggcgc        60
gactgggagc tgagcccttc cctttgcgcc tgcctcagag gattgttgcc gacntgcana      120
tctcantggg ctggatncat gcaggggt                                          147

        <210> 58
        <211> 198
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(198)
        <223> n = A,T,C or G

        <400> 58
acagggatat aggtttnaag ttattgtnat tgtaaaatac attgaatttt ctgtatactc        60
tgattacata catttatcct ttaaaaaga tgtaaatctt aattttatg ccatctatta       120
atttaccaat gagttacctt gtaaatgaga agtcatgata gcactgaatt ttaactagtt      180
ttgacttcta agtttggt                                                     198

        <210> 59
```

24

```
        <211> 330
        <212> DNA
        <213> Homo sapien

        <400> 59
acaacaaatg ggttgtgagg aagtcttatc agcaaaactg gtgatggcta ctgaaaagat        60
ccattgaaaa ttatcattaa tgattttaaa tgacaagtta tcaaaaactc actcaatttt       120
cacctgtgct agcttgctaa aatgggagtt aactctagag caaatatagt atcttctgaa       180
tacagtcaat aaatgacaaa gccagggcct acaggtggtt tccagacttt ccagacccag       240
cagaaggaat ctattttatc acatggatct ccgtctgtgc tcaaaatacc taatgatatt       300
tttcgtcttt attggacttc tttgaagagt                                         330

        <210> 60
        <211> 175
        <212> DNA
        <213> Homo sapien

        <400> 60
accgtgggtg ccttctacat tcctgacggc tccttcacca acatctggtt ctacttcggc        60
gtcgtgggct ccttcctctt catcctcatc cagctggtgc tgctcatcga ctttgcgcac       120
tcctggaacc agcggtggct gggcaaggcc gaggagtgcg attcccgtgc ctggt            175

        <210> 61
        <211> 154
        <212> DNA
        <213> Homo sapien

        <400> 61
accccacttt tcctcctgtg agcagtctgg acttctcact gctacatgat gagggtgagt        60
ggttgttgct cttcaacagt atcctcccct ttccggatct gctgagccgg acagcagtgc       120
tggactgcac agccccgggg ctccacattg ctgt                                    154

        <210> 62
        <211> 30
        <212> DNA
        <213> Homo sapien

        <400> 62
cgctcgagcc ctatagtgag tcgtattaga                                          30

        <210> 63
        <211> 89
        <212> DNA
        <213> Homo sapien

        <400> 63
acaagtcatt tcagcaccct ttgctcttca aaactgacca tctttatat ttaatgcttc         60
ctgtatgaat aaaaatggtt atgtcaagt                                           89

        <210> 64
        <211> 97
        <212> DNA
        <213> Homo sapien

        <400> 64
accggagtaa ctgagtcggg acgctgaatc tgaatccacc aataaataaa ggttctgcag        60
aatcagtgca tccaggattg gtccttggat ctggggt                                  97
```

25

```
        <210> 65
        <211> 377
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(377)
        <223> n = A,T,C or G

        <400> 65
acaacaanaa ntcccttctt taggccactg atggaaacct ggaaccccct tttgatggca      60
gcatggcgtc ctaggccttg acacagcggc tggggtttgg gctntcccaa accgcacacc     120
ccaaccctgg tctacccaca nttctggcta tgggctgtct ctgccactga acatcagggt     180
tcggtcataa natgaaatcc caanggggac agaggtcagt agaggaagct caatgagaaa     240
ggtgctgttt gctcagccag aaaacagctg cctggcattc gccgctgaac tatgaacccg     300
tgggggtgaa ctacccccan gaggaatcat gcctgggcga tgcaaggtg ccaacaggag      360
gggcgggagg agcatgt                                                    377

        <210> 66
        <211> 305
        <212> DNA
        <213> Homo sapien

        <400> 66
acgcctttcc ctcagaattc agggaagaga ctgtcgcctg ccttcctccg ttgttgcgtg      60
agaacccgtg tgccccttcc caccatatcc accctcgctc catctttgaa ctcaaacacg     120
aggaactaac tgcaccctgg tcctctcccc agtccccagt tcaccctcca tccctcacct     180
tcctccactc taaggatat caacactgcc cagcacaggg gccctgaatt tatgtggttt      240
ttatatattt tttaataaga tgcactttat gtcatttttt aataaagtct gaagaattac     300
tgttt                                                                 305

        <210> 67
        <211> 385
        <212> DNA
        <213> Homo sapien

        <400> 67
actacacaca ctcccacttgc ccttgtgaga cactttgtcc cagcactttta ggaatgctga    60
ggtcggacca gccacatctc atgtgcaaga ttgcccagca gacatcaggt ctgagagttc     120
ccctttttaaa aaaggggact tgcttaaaaa agaagtctag ccacgattgt gtagagcagc     180
tgtgctgtgc tggagattca cttttgagag agttctcctc tgagacctga tctttagagg     240
ctgggcagtc ttgcacatga gatggggctg gtctgatctc agcactcctt agtctgcttg     300
cctctcccag ggccccagcc tggccacacc tgcttacagg gcactctcag atgcccatac     360
catagtttct gtgctagtgg accgt                                          385

        <210> 68
        <211> 73
        <212> DNA
        <213> Homo sapien

        <400> 68
acttaaccag atatatttttt accccagatg gggatattct ttgtaaaaaa tgaaaataaa    60
gtttttttaa tgg                                                        73

        <210> 69
        <211> 536
        <212> DNA
```

26

```
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(536)
<223> n = A,T,C or G

<400> 69
actagtccag tgtggtggaa ttccattgtg ttggggggctc tcaccctcct ctcctgcagc      60
tccagctttg tgctctgcct ctgaggagac catggcccag catctgagta ccctgctgct     120
cctgctggcc accctagctg tggccctggc ctggagcccc aaggaggagg ataggataat     180
cccgggtggc atctataacg cagacctcaa tgatgagtgg gtacagcgtg cccttcactt     240
cgccatcagc gagtataaca aggccaccaa agatgactac tacagacgtc cgctgcgggt     300
actaagagcc aggcaacaga ccgttggggg ggtgaattac ttcttcgacg tagaggtggg     360
ccgaaccata tgtaccaagt cccagcccaa cttggacacc tgtgccttcc atgaacagcc     420
agaactgcag aagaaacagt tgtgctcttt cgagatctac gaagttccct ggggagaaca     480
gaangtccct gggtgaaatc caggtgtcaa gaaatcctan ggatctgttg ccaggc         536

<210> 70
<211> 477
<212> DNA
<213> Homo sapien

<400> 70
atgacccccta acaggggccc tctcagccct cctaatgacc tccggcctag ccatgtgatt      60
tcacttccac tccataacgc tcctcatact aggcctacta accaacacac taaccatata     120
ccaatgatgg cgcgatgtaa cacgagaaag cacataccaa ggccaccaca caccacctgt     180
ccaaaaaggc cttcgatacg ggataatcct atttattacc tcagaagttt ttttcttcgc     240
agggattttt ctgagccttt taccactcca gcctagcccc tãccccccaa ctaggagggc     300
actggccccc aacaggcatc accccgctaa atcccctaga agtcccactc ctaaacacat     360
ccgtattact cgcatcagga gtatcaatca cctgagctca ccatagtcta atagaaaaca     420
accgaaacca aattattcaa agcactgctt attacaattt tactgggtct ctatttt        477

<210> 71
<211> 533
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(533)
<223> n = A,T,C or G

<400> 71
agagctatag gtacagtgtg atctcagctt tgcaaacaca ttttctacat agatagtact      60
aggtattaat agatatgtaa agaaagaaat cacaccatta ataatggtaa gattggttta     120
tgtgatttta gtggtatttt tggcacccctt atatatgttt tccaaacttt cagcagtgat     180
attatttcca taacttaaaa agtgagtttg aaaaagaaaa tctccagcaa gcatctcatt     240
taaataaagg tttgtcatct ttaaaaatac agcaatatgt gactttttaa aaaagctgtc     300
aaataggtgt gaccctacta ataattatta gaaatacatt taaaaacatc gagtacctca     360
agtcagtttg ccttgaaaaa tatcaaatat aactcttaga gaaatgtaca taaaagaatg     420
cttcgtaatt ttggagtang aggttccctc ctcaattttg tatttttaaa aagtacatgg     480
taaaaaaaaa aattcacaac agtatataag ctgtaaaat gaagaattct gcc              533

<210> 72
<211> 511
<212> DNA
<213> Homo sapien
```

27

```
<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 72
tattacggaa aaacacacca cataattcaa ctancaaaga anactgcttc agggcgtgta        60
aaatgaaagg cttccaggca gttatctgat taaagaacac taaaagaggg acaaggctaa       120
aagccgcagg atgtctacac tatancaggc gctatttggg ttggctggag gagctgtgga       180
aaacatggan agattggtgc tgganatcgc cgtggctatt cctcattgtt attacanagt       240
gaggttctct gtgtgcccac tggtttgaaa accgttctnc aataatgata gaatagtaca       300
cacatgagaa ctgaaatggc ccaaacccag aaagaaagcc caactagatc ctcagaanac       360
gcttctaggg acaataaccg atgaagaaaa gatggcctcc ttgtgccccc gtctgttatg       420
atttctctcc attgcagcna naaacccgtt cttctaagca aacncaggtg atgatggcna       480
aaatacaccc cctcttgaag naccnggagg a                                      511


<210> 73
<211> 499
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(499)
<223> n = A,T,C or G

<400> 73
cagtgccagc actggtgcca gtaccagtac caataacagt gccagtgcca gtgccagcac        60
cagtggtggc ttcagtgctg gtgccagcct gaccgccact ctcacatttg ggctcttcgc       120
tggccttggt ggagctggtg ccagcaccag tggcagctct ggtgcctgtg gtttctccta       180
caagtgagat tttagatatt gttaatcctg ccagtctttc tcttcaagcc agggtgcatc       240
ctcagaaacc tactcaacac agcactctag gcagccacta tcaatcaatt gaagttgaca       300
ctctgcatta aatctatttg ccatttctga aaaaaaaaaa aaaaaaaggg cggccgctcg       360
antctagagg gcccgtttaa acccgctgat cagcctcgac tgtgccttct anttgccagc       420
catctgttgt ttgcccctcc cccgntgcct tccttgaccc tggaaagtgc cactcccact       480
gtcctttcct aantaaaat                                                    499


<210> 74
<211> 537
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(537)
<223> n = A,T,C or G

<400> 74
tttcatagga gaacacactg aggagatact tgaagaattt ggattcagcc gcgaagagat        60
ttatcagctt aactcagata aaatcattga aagtaataag gtaaaagcta gtctctaact       120
tccaggccca cggctcaagt gaatttgaat actgcattta cagtgtagag taacacataa       180
cattgtatgc atggaaacat ggaggaacag tattacagtg tcctaccact ctaatcaaga       240
aaagaattac agactctgat tctacagtga tgattgaatt ctaaaaatgg taatcattag       300
ggcttttgat ttataanact ttgggtactt atactaaatt atggtagtta tactgccttc       360
cagtttgctt gatatatttg ttgatattaa gattcttgac ttatattttg aatggggttct       420
actgaaaaan gaatgatata ttcttgaaga catcgatata catttatttta cactcttgat       480
tctacaatgt agaaaatgaa ggaaatgccc caaattgtat ggtgataaaa gtcccgt          537
```

28

```
<210> 75
<211> 467
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(467)
<223> n = A,T,C or G

<400> 75
caaanacaat tgttcaaaag atgcaaatga tacactactg ctgcagctca caaacacctc        60
tgcatattac acgtacctcc tcctgctcct caagtagtgt ggtctatttt gccatcatca       120
cctgctgtct gcttagaaga acggctttct gctgcaangg agagaaatca taacagacgg       180
tggcacaagg aggccatctt ttcctcatcg gttattgtcc ctagaagcgt cttctgagga       240
tctagttggg ctttctttct gggtttgggc catttcantt ctcatgtgtg tactattcta       300
tcattattgt ataacggttt tcaaaccngt gggcacncag agaacctcac tctgtaataa       360
caatgaggaa tagccacggt gatctccagc accaaatctc tccatgttnt tccagagctc       420
ctccagccaa cccaaatagc cgctgctatn gtgtagaaca tccctgn                    467


<210> 76
<211> 400
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 76
aagctgacag cattcgggcc gagatgtctc gctccgtggc cttagctgtg ctcgcgctac        60
tctctctttc tggcctggag gctatccagc gtactccaaa gattcaggtt tactcacgtc       120
atccagcaga gaatggaaag tcaaatttcc tgaattgcta tgtgtctggg tttcatccat       180
ccgacattga agttgactta ctgaagaatg gagagagaat tgaaaaagtg gagcattcag       240
acttgtcttt cagcaaggac tggtctttct atctcttgta ctacactgaa ttcacccccca      300
ctgaaaaaga tgagtatgcc tgccgtgtga accatgtgac tttgtcacag cccaagatng       360
ttnagtggga tcganacatg taagcagcan catgggaggt                            400


<210> 77
<211> 248
<212> DNA
<213> Homo sapien

<400> 77
ctggagtgcc ttggtgtttc aagcccctgc aggaagcaga atgcaccttc tgaggcacct        60
ccagctgccc cggcggggga tgcgaggctc ggagcaccct tgcccggctg tgattgctgc       120
caggcactgt tcatctcagc ttttctgtcc ctttgctccc ggcaagcgct tctgctgaaa       180
gttcatatct ggagcctgat gtcttaacga ataaaggtcc catgctccac ccgaaaaaaa       240
aaaaaaaa                                                               248


<210> 78
<211> 201
<212> DNA
<213> Homo sapien

<400> 78
```

29

```
actagtccag tgtggtggaa ttccattgtg ttgggcccaa cacaatggct acctttaaca      60
tcacccagac cccgccctgc ccgtgcccca cgctgctgct aacgacagta tgatgcttac     120
tctgctactc ggaaactatt tttatgtaat taatgtatgc tttcttgttt ataaatgcct     180
gatttaaaaa aaaaaaaaaa a                                                201
```

```
        <210> 79
        <211> 552
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(552)
        <223> n = A,T,C or G

        <400> 79
tcctttttgtt aggttttttga gacaaccccta gacctaaact gtgtcacaga cttctgaatg      60
tttaggcagt gctagtaatt tcctcgtaat gattctgtta ttactttcct attctttatt     120
cctctttctt ctgaagatta atgaagttga aaattgaggt ggataaatac aaaaaggtag     180
tgtgatagta taagtatcta agtgcagatg aaagtgtgtt atatatatcc attcaaaatt     240
atgcaagtta gtaattactc agggttaact aaaattacttt aatatgctgt tgaacctact     300
ctgttccttg gctagaaaaa attataaaca ggactttgtt agtttgggaa gccaaattga     360
taatattcta tgttctaaaa gttgggctat acataaanta tnaagaaata tggaattta     420
ttcccaggaa tatggggttc atttatgaat antacccggg anagaagttt tgantnaaac     480
cngtttttggt taatacgtta atatgtcctn aatnaacaag gcntgactta tttccaaaaa     540
aaaaaaaaaa aa                                                           552
```

```
        <210> 80
        <211> 476
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(476)
        <223> n = A,T,C or G

        <400> 80
acagggattt gagatgctaa ggccccagag atcgtttgat ccaaccctct tattttcaga      60
ggggaaaatg gggcctagaa gttacagagc atctagctgg tgcgctggca cccctggcct     120
cacacagact cccgagtagc tgggactaca ggcacacagt cactgaagca ggccctgttt     180
gcaattcacg ttgccacctc caacttaaac attcttcata tgtgatgtcc ttagtcacta     240
aggttaaact ttcccacccha gaaaaggcaa cttagataaa atcttagagt actttcatac     300
tcttctaagt cctcttccag cctcactttg agtcctcctt gggggttgat aggaantntc     360
tcttggcttt ctcaataaaa tctctatcca tctcatgttt aatttggtac gcntaaaaat     420
gctgaaaaaa ttaaaatgtt ctggtttcnc tttaaaaaaa aaaaaaaaaa aaaaaa         476
```

```
        <210> 81
        <211> 232
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(232)
        <223> n = A,T,C or G

        <400> 81
```

30

```
tttttttttg tatgccntcn ctgtggngtt attgttgctg ccaccctgga ggagcccagt      60
ttcttctgta tctttctttt ctgggggatc ttcctggctc tgcccctcca ttcccagcct     120
ctcatcccca tcttgcactt ttgctagggt tggaggcgct ttcctggtag cccctcagag     180
actcagtcag cgggaataag tcctaggggt gggggggtgtg gcaagccggc ct           232
```

        <210> 82
        <211> 383
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(383)
        <223> n = A,T,C or G

        <400> 82
```
aggcgggagc agaagctaaa gccaaagccc aagaagagtg gcagtgccag cactggtgcc      60
agtaccagta ccataacat gccagtgcca gtgccagcac cagtggtggc ttcagtgctg     120
gtgccagcct gaccgccact ctcacatttg ggctcttcgc tggccttggt ggagctggtg     180
ccagcaccag tggcagctct ggtgcctgtg gtttctccta caagtgagat tttagatatt     240
gttaatcctg ccagtctttc tcttcaagcc agggtgcatc ctcagaaacc tactcaacac     300
agcactctng gcagccacta tcaatcaatt gaagttgaca ctctgcatta aatctatttg     360
ccatttcaaa aaaaaaaaaa aaa                                             383
```

        <210> 83
        <211> 494
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(494)
        <223> n = A,T,C or G

        <400> 83
```
accgaattgg gaccgctggc ttataagcga tcatgtcctc cagtattacc tcaacgagca      60
gggagatcga gtctatacgc tgaagaaatt tgacccgatg ggacaacaga cctgctcagc     120
ccatcctgct cggttctccc cagatgacaa atactctcga caccgaatca ccatcaagaa     180
acgcttcaag gtgctcatga cccagcaacc gcgccctgtc ctctgagggt ccttaaactg     240
atgtcttttc tgccacctgt tacccctcgg agactccgta accaaactct tcggactgtg     300
agccctgatg cctttttgcc agccatactc tttggcntcc agtctctcgt ggcgattgat     360
tatgcttgt tgaggcaatc atggtggcat cacccatnaa gggaacacat ttganttttt     420
tttcncatat tttaaattac naccagaata nttcagaata aatgaattga aaaactctta     480
aaaaaaaaaa aaaa                                                       494
```

        <210> 84
        <211> 380
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(380)
        <223> n = A,T,C or G

        <400> 84
```
gctggtagcc tatggcgtgg ccacggangg gctcctgagg cacgggacag tgacttccca      60
agtatcctgc gccgcgtctt ctaccgtccc tacctgcaga tcttcgggca gattccccag     120
```

```
gaggacatgg acgtggccct catggagcac agcaactgct cgtcggagcc cggcttctgg     180
gcacaccctc ctggggccca ggcgggcacc tgcgtctccc agtatgccaa ctggctggtg     240
gtgctgctcc tcgtcatctt cctgctcgtg gccaacatcc tgctggtcac ttgctcattg     300
ccatgttcag ttacacattc ggcaaagtac agggcaacag cnatctctac tgggaaggcc     360
agcgttnccg cctcatccgg                                                  380
```

```
        <210> 85
        <211> 481
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(481)
        <223> n = A,T,C or G

        <400> 85
gagttagctc ctccacaacc ttgatgaggt cgtctgcagt ggcctctcgc ttcataccgc     60
tnccatcgtc atactgtagg tttgccacca cctcctgcat cttggggcgg ctaatatcca     120
ggaaactctc aatcaagtca ccgtcnatna aacctgtggc tggttctgtc ttccgctcgg     180
tgtgaaagga tctccagaag gagtgctcga tcttccccac acttttgatg actttattga     240
gtcgattctg catgtccagc aggaggttgt accagctctc tgacagtgag gtcaccagcc     300
ctatcatgcc nttgaacgtg ccgaagaaca ccgagccttg tgtggggggt gnagtctcac     360
ccagattctg cattaccaga nagccgtggc aaaaganatt gacaactcgc ccaggnngaa     420
aaagaacacc tcctggaagt gctngccgct cctcgtccnt tggtggnngc gcntnccttt     480
t                                                                      481
```

```
        <210> 86
        <211> 472
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(472)
        <223> n = A,T,C or G

        <400> 86
aacatcttcc tgtataatgc tgtgtaatat cgatccgatn ttgtctgctg agaattcatt     60
acttggaaaa gcaacttnaa gcctggacac tggtattaaa attcacaata tgcaacactt     120
taaacagtgt gtcaatctgc tcccttactt tgtcatcacc agtctgggaa taagggtatg     180
ccctattcac acctgttaaa agggcgctaa gcattttga ttcaacatct ttttttttga     240
cacaagtccg aaaaaagcaa aagtaaacag ttnttaattt gttagccaat tcactttctt     300
catgggacag agccatttga tttaaaaagc aaattgcata atattgagct ttgggagctg     360
atatntgagc ggaagantag cctttctact tcaccagaca caactccttt catattggga     420
tgttnacnaa agttatgtct cttacagatg ggatgctttt gtggcaattc tg             472
```

```
        <210> 87
        <211> 413
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(413)
        <223> n = A,T,C or G

        <400> 87
```

32

```
agaaaccagt atctctnaaa acaacctctc ataccttgtg gacctaattt tgtgtgcgtg        60
tgtgtgtgcg cgcatattat atagacaggc acatcttttt tactttttgta aaagcttatg      120
cctctttggt atctatatct gtgaaagttt taatgatctg ccataatgtc ttggggacct      180
ttgtcttctg tgtaaatggt actagagaaa acacctatnt tatgagtcaa tctagttngt      240
tttattcgac atgaaggaaa tttccagatn acaacactna caaactctcc cttgactagg      300
ggggacaaag aaaagcanaa ctgaacatna gaaacaattn cctggtgaga aattncataa      360
acagaaattg ggtngtatat tgaaananng catcattnaa acgttttttt ttt            413
```

        <210> 88
        <211> 448
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(448)
        <223> n = A,T,C or G

        <400> 88
```
cgcagcgggt cctctctatc tagctccagc ctctcgcctg ccccactccc cgcgtcccgc        60
gtcctagccn accatggccg ggcccctgcg cgccccgctg ctcctgctgg ccatcctggc      120
cgtggccctg gccgtgagcc ccgcggccgg ctccagtccc ggcaagccgc cgcgcctggt      180
gggaggccca tggaccccgc gtggaagaag aaggtgtgcg gcgtgcactg gactttgccg      240
tcggcnanta caacaaaccc gcaacnactt ttaccnagcn cgcgctgcag gttgtgccgc      300
cccaancaaa ttgttactng gggtaantaa ttcttggaag ttgaacctgg gccaaacnng      360
tttaccagaa ccnagccaat tngaacaatt nccctccat aacagcccct tttaaaaagg       420
gaancantcc tgntctttc caaatttt                                           448
```

        <210> 89
        <211> 463
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(463)
        <223> n = A,T,C or G

        <400> 89
```
gaattttgtg cactggccac tgtgatggaa ccattgggcc aggatgcttt gagtttatca        60
gtagtgattc tgccaaagtt ggtgttgtaa catgagtatg taaaatgtca aaaaattagc      120
agaggtctag gtctgcatat cagcagacag tttgtccgtg tattttgtag ccttgaagtt      180
ctcagtgaca agttnnttct gatgcgaagt tctnattcca gtgttttagt cctttgcatc      240
tttnatgttn agacttgcct ctntnaaatt gcttttgtnt tctgcaggta ctatctgtgg      300
tttaacaaaa tagaannact tctctgcttn gaanatttga atatcttaca tctnaaaatn      360
aattctctcc ccatannaaa acccangccc ttggganaat ttgaaaaang gntccttcnn      420
aattcnnana anttcagntn tcatacaaca naacnggganc ccc                        463
```

        <210> 90
        <211> 400
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(400)
        <223> n = A,T,C or G

33

```
<400> 90
agggattgaa ggtctnttnt actgtcggac tgttcancca ccaactctac aagttgctgt    60
cttccactca ctgtctgtaa gcntnttaac ccagactgta tcttcataaa tagaacaaat   120
tcttcaccag tcacatcttc taggaccttt ttggattcag ttagtataag ctcttccact   180
tcctttgtta agacttcatc tggtaaagtc ttaagttttg tagaaaggaa tttaattgct   240
cgttctctaa caatgtcctc tccttgaagt atttggctga acaacccacc tnaagtccct   300
ttgtgcatcc atttaaata tacttaatag ggcattggtn cactaggtta aattctgcaa   360
gagtcatctg tctgcaaaag ttgcgttagt atatctgcca                        400


        <210> 91
        <211> 480
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(480)
        <223> n = A,T,C or G

        <400> 91
gagctcggat ccaataatct ttgtctgagg gcagcacaca tatncagtgc catggnaact    60
ggtctacccc acatgggagc agcatgccgt agntatataa ggtcattccc tgagtcagac   120
atgcctcttt gactaccgtg tgccagtgct ggtgattctc acacacctcc nnccgctctt   180
tgtggaaaaa ctggcacttg nctggaacta gcaagacatc acttacaaat tcacccacga   240
gacacttgaa aggtgtaaca aagcgactct tgcattgctt tttgtccctc cggcaccagt   300
tgtcaatact aacccgctgg tttgcctcca tcacatttgt gatctgtagc tctggataca   360
tctcctgaca gtactgaaga acttcttctt ttgtttcaaa agcaactctt ggtgcctgtt   420
ngatcaggtt cccatttccc agtccgaatg ttcacatggc atatnttact tcccacaaaa   480


        <210> 92
        <211> 477
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(477)
        <223> n = A,T,C or G

        <400> 92
atacagccca natcccacca cgaagatgcg cttgttgact gagaacctga tgcggtcact    60
ggtcccgctg tagccccagc gactctccac ctgctggaag cggttgatgc tgcactcctt   120
cccacgcagg cagcagcggg gccggtcaat gaactccact cgtggcttgg ggttgacggt   180
taantgcagg aagaggctga ccacctcgcg gtccaccagg atgcccgact gtgcgggacc   240
tgcagcgaaa ctcctcgatg gtcatgagcg ggaagcgaat gangcccagg gccttgccca   300
gaaccttccg cctgttctct ggcgtcacct gcagctgctg ccgctacac tcggcctcgg   360
accagcggac aaacggcgtt gaacagccgc acctcacgga tgcccantgt gtcgcgctcc   420
aggaacggcn ccagcgtgtc caggtcaatg tcggtgaanc ctccgcgggt aatggcg     477


        <210> 93
        <211> 377
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(377)
        <223> n = A,T,C or G
```

34

```
        <400> 93
gaacggctgg accttgcctc gcattgtgct gctggcagga ataccttggc aagcagctcc     60
agtccgagca gccccagacc gctgccgccc gaagctaagc ctgcctctgg ccttcccctc    120
cgcctcaatg cagaaccant agtgggagca ctgtgtttag agttaagagt gaacactgtn    180
tgattttact tgggaatttc ctctgttata tagcttttcc caatgctaat ttccaaacaa    240
caacaacaaa ataacatgtt tgcctgttna gttgtataaa agtangtgat tctgtatnta    300
aagaaaatat tactgttaca tatactgctt gcaanttctg tatttattgg tnctctggaa    360
ataaatatat tattaaa                                                   377

        <210> 94
        <211> 495
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(495)
        <223> n = A,T,C or G

        <400> 94
ccctttgagg ggttagggtc cagttcccag tggaagaaac aggccaggag aantgcgtgc     60
cgagctgang cagatttccc acagtgaccc cagagccctg ggctatagtc tctgacccct    120
ccaaggaaag accaccttct ggggacatgg gctggagggc aggacctaga ggcaccaagg    180
gaaggcccca ttccggggct gttccccgag gaggaaggga aggggctctg tgtgcccccc    240
acgaggaana ggccctgant cctgggatca nacacccctt cacgtgtatc cccacacaaa    300
tgcaagctca ccaaggtccc ctctcagtcc cttccctaca ccctgaacgg ncactggccc    360
acacccaccc agancancca cccgccatgg ggaatgtnct caaggaatcg cngggcaacg    420
tggactctng tcccnnaagg gggcagaatc tccaatagan gganngaacc cttgctnana    480
aaaaaaaana aaaaa                                                    495

        <210> 95
        <211> 472
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(472)
        <223> n = A,T,C or G

        <400> 95
ggttacttgg tttcattgcc accacttagt ggatgtcatt tagaaccatt ttgtctgctc     60
cctctggaag ccttgcgcag agcggacttt gtaattgttg gagaataact gctgaatttt    120
tagctgtttt gagttgattc gcaccactgc accacaactc aatatgaaaa ctatttnact    180
tatttattat cttgtgaaaa gtatacaatg aaaattttgt tcatactgta tttatcaagt    240
atgatgaaaa gcaatagata tatattcttt tattatgttn aattatgatt gccattatta    300
atcggcaaaa tgtggagtgt atgttctttt cacagtaata tatgcctttt gtaacttcac    360
ttggttattt tattgtaaat gaattacaaa attcttaatt taagaaaatg gtangttata    420
tttanttcan taatttcttt ccttgtttac gttaattttg aaaagaatgc at           472

        <210> 96
        <211> 476
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
```

35

```
        <222> (1)...(476)
        <223> n = A,T,C or G

        <400> 96
ctgaagcatt tcttcaaact tntctacttt tgtcattgat acctgtagta agttgacaat        60
gtggtgaaat ttcaaaatta tatgtaactt ctactagttt tactttctcc cccaagtctt       120
ttttaactca tgatttttac acacacaatc cagaacttat tatatagcct ctaagtcttt       180
attcttcaca gtagatgatg aaagagtcct ccagtgtctt gngcanaatg ttctagntat       240
agctggatac atacngtggg agttctataa actcatacct cagtgggact naaccaaaat       300
tgtgttagtc tcaattccta ccacactgag ggagcctccc aaatcactat attcttatct       360
gcaggtactc ctccagaaaa acngacaggg caggcttgca tgaaaaagtn acatctgcgt       420
tacaaagtct atcttcctca nangtctgtn aaggaacaat ttaatcttct agcttt          476

        <210> 97
        <211> 479
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(479)
        <223> n = A,T,C or G

        <400> 97
actctttcta atgctgatat gatcttgagt ataagaatgc atatgtcact agaatggata        60
aaataatgct gcaaacttaa tgttcttatg caaaatggaa cgctaatgaa acacagctta       120
caatcgcaaa tcaaaactca caagtgctca tctgttgtag atttagtgta ataagactta       180
gattgtgctc cttcggatat gattgtttct canatcttgg gcaatnttcc ttagtcaaat       240
caggctacta gaattctgtt attggatatn tgagagcatg aaatttttaa naatacactt       300
gtgattatna aattaatcac aaatttcact tatacctgct atcagcagct agaaaaacat       360
ntnnttttta natcaaagta ttttgtgttt ggaantgtnn aaatgaaatc tgaatgtggg       420
ttcnatctta ttttttcccn gacnactant tncttttta gggnctattc tganccatc       479

        <210> 98
        <211> 461
        <212> DNA
        <213> Homo sapien

        <400> 98
agtgacttgt cctccaacaa aaccccttga tcaagtttgt ggcactgaca atcagaccta        60
tgctagttcc tgtcatctat tcgctactaa atgcagactg gaggggacca aaaaggggca       120
tcaactccag ctggattatt ttggagcctg caaatctatt cctacttgta cggactttga       180
agtgattcag tttcctctac ggatgagaga ctggctcaag aatatcctca tgcagcttta       240
tgaagccact ctgaacacgc tggttatcta gatgagaaca gagaaataaa gtcagaaaat       300
ttacctggag aaaagaggct ttggctgggg accatcccat tgaaccttct cttaaggact       360
ttaagaaaaa ctaccacatg ttgtgtatcc tggtgccggc cgtttatgaa ctgaccaccc       420
tttggaataa tcttgacgct cctgaacttg ctcctctgcg a                          461

        <210> 99
        <211> 171
        <212> DNA
        <213> Homo sapien

        <400> 99
gtggccgcgc gcaggtgttt cctcgtaccg cagggccccc tcccttcccc aggcgtccct        60
cggcgcctct gcgggcccga ggaggagcgg ctggcgggtg gggggagtgt gacccaccct       120
cggtgagaaa agccttctct agcgatctga gaggcgtgcc ttggggggtac c              171
```

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```
        <210> 100
        <211> 269
        <212> DNA
        <213> Homo sapien

        <400> 100
cggccgcaag tgcaactcca gctggggccg tgcggacgaa gattctgcca gcagttggtc      60
cgactgcgac gacggcggcg gcgacagtcg caggtgcagc gcgggcgcct ggggtcttgc     120
aaggctgagc tgacgccgca gaggtcgtgt cacgtcccac gaccttgacg ccgtcgggga     180
cagccggaac agagcccggt gaagcgggag gcctcgggga gccctcgggg aagggcggcc     240
cgagagatac gcaggtgcag gtggccgcc                                       269

        <210> 101
        <211> 405
        <212> DNA
        <213> Homo sapien

        <400> 101
tttttttttt ttttggaatc tactgcgagc acagcaggtc agcaacaagt ttattttgca      60
gctagcaagg taacagggta gggcatggtt acatgttcag gtcaacttcc tttgtcgtgg     120
ttgattggtt tgtctttatg ggggcggggt ggggtagggg aaacgaagca aataacatgg     180
agtgggtgca ccctccctgt agaacctggt tacaaagctt ggggcagttc acctggtctg     240
tgaccgtcat tttcttgaca tcaatgttat tagaagtcag gatatctttt agagagtcca     300
ctgttctgga gggagattag ggtttcttgc caaatccaac aaaatccact gaaaaagttg     360
gatgatcagt acgaataccg aggcatattc tcatatcggt ggcca                     405

        <210> 102
        <211> 470
        <212> DNA
        <213> Homo sapien

        <400> 102
tttttttttt ttttttttttt tttttttttt tttttttttt tttttttttt tttttttttt      60
ggcacttaat ccattttttat ttcaaaatgt ctacaaattt aatcccatta tacggtattt     120
tcaaaatcta aattattcaa attagccaaa tccttaccaa ataatcccca aaaatcaaaa     180
atatacttct ttcagcaaac ttgttacata aattaaaaaa atatatacgg ctggtgtttt     240
caaagtacaa ttatcttaac actgcaaaca tttttaaggaa ctaaaataaa aaaaaacact     300
ccgcaaaggt taaagggaac aacaaattct tttacaacac cattataaaa atcatatctc     360
aaatcttagg ggaatatata cttcacacgg gatcttaact tttactcact ttgtttattt     420
ttttaaacca ttgtttgggc ccaacacaat ggaatccccc ctggactagt                 470

        <210> 103
        <211> 581
        <212> DNA
        <213> Homo sapien

        <400> 103
tttttttttt ttttttttga cccccctctt ataaaaaaca agttaccatt ttattttact      60
tacacatatt tattttataa ttggtattag atattcaaaa ggcagctttt aaaatcaaac     120
taaatggaaa ctgccttaga tacataattc ttaggaatta gcttaaaatc tgcctaaagt     180
gaaaatcttc tctagctctt ttgactgtaa attttttgact cttgtaaaac atccaaattc     240
attttttcttg tctttaaaat tatctaatct ttccattttt tccctattcc aagtcaattt     300
gcttctctag cctcatttcc tagctcttat ctactattag taagtggctt ttttcctaaa     360
agggaaaaca ggaagagaaa tggcacacaa aacaaacatt ttatattcat atttctacct     420
acgttaataa aatagcattt tgtgaagcca gctcaaaaga aggcttagat cctttttatgt     480
ccattttagt cactaaacga tatcaaagtg ccagaatgca aaaggtttgt gaacatttat     540
tcaaaagcta atataagata tttcacatac tcatctttct g                         581
```

```
        <210> 104
        <211> 578
        <212> DNA
        <213> Homo sapien

        <400> 104
ttttttttttt ttttttttttt tttttctctt cttttttttt gaaatgagga tcgagttttt      60
cactctctag ataggggcatg aagaaaactc atctttccag ctttaaaata acaatcaaat     120
ctcttatgct atatcatatt ttaagttaaa ctaatgagtc actggcttat cttctcctga     180
aggaaatctg ttcattcttc tcattcatat agttatatca agtactacct tgcatattga     240
gaggtttttc ttctctattt acacatatat ttccatgtga atttgtatca aacctttatt     300
ttcatgcaaa ctagaaaata atgtttcttt tgcataagag aagagaacaa tatagcatta     360
caaaactgct caaattgttt gttaagttat ccattataat tagttggcag gagctaatac     420
aaatcacatt tacgacagca ataataaaac tgaagtacca gttaaatatc caaaataatt     480
aaaggaacat tttttagcctg ggtataatta gctaattcac tttacaagca tttattagaa     540
tgaattcaca tgttattatt cctagcccaa cacaatgg                             578

        <210> 105
        <211> 538
        <212> DNA
        <213> Homo sapien

        <400> 105
tttttttttt tttttcagta ataatcagaa caatatttat ttttatattt aaaattcata      60
gaaaagtgcc ttacatttaa taaaagtttg tttctcaaag tgatcagagg aattagatat     120
gtcttgaaca ccaatattaa tttgaggaaa atacaccaaa atacattaag taaattatttt     180
aagatcatag agcttgtaag tgaaaagata aaatttgacc tcagaaactc tgagcattaa     240
aaatccacta ttagcaaata aattactatg gacttcttgc tttaattttg tgatgaatat     300
ggggtgtcac tggtaaacca acacattctg aaggatacat tacttagtga tagattctta     360
tgtactttgc taatacgtgg atatgagttg acaagtttct ctttcttcaa tcttttaagg     420
ggcgagaaat gaggaagaaa agaaaaggat tacgcatact gttctttcta tggaaggatt     480
agatatgttt cctttgccaa tattaaaaaa ataataatgt ttactactag tgaaaccc       538

        <210> 106
        <211> 473
        <212> DNA
        <213> Homo sapien

        <400> 106
tttttttttt tttttagtc aagtttctat ttttattata attaaagtct tggtcatttc        60
atttattagc tctgcaactt acatatttaa attaaagaaa cgttttagac aactgtacaa     120
tttataaatg taaggtgcca ttattgagta atatattcct ccaagagtgg atgtgtccct     180
tctcccacca actaatgaac agcaacatta gtttaatttt attagtagat atacactgct     240
gcaaacgcta attctcttct ccatccccat gtgatattgt gtatatgtgt gagttggtag     300
aatgcatcac aatctacaat caacagcaag atgaagctag ctgggcttt cggtgaaaat      360
agactgtgtc tgtctgaatc aaatgatctg acctatcctc ggtggcaaga actcttcgaa     420
ccgcttcctc aaaggcgctg ccacatttgt ggctctttgc acttgtttca aaa            473

        <210> 107
        <211> 1621
        <212> DNA
        <213> Homo sapien

        <400> 107
cgccatggca ctgcagggca tctcggtcat ggagctgtcc ggcctggccc cgggcccgtt       60
ctgtgctatg gtcctggctg acttcggggc gcgtgtggta cgcgtggacc ggcccggctc     120
ccgctacgac gtgagccgct ggggccgggg caagcgctcg ctagtgctgg acctgaagca     180
gccgcgggga gccgccgtgc tgcggcgtct gtgcaagcgg tcggatgtgc tgctggagcc     240
```

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```
cttccgccgc ggtgtcatgg agaaactcca gctgggccca gagattctgc agcgggaaaa      300
tccaaggctt atttatgcca ggctgagtgg atttggccag tcaggaagct tctgccggtt      360
agctggccac gatatcaact atttggcttt gtcaggtgtt ctctcaaaaa ttggcagaag      420
tggtgagaat ccgtatgccc cgctgaatct cctggctgac tttgctggtg gtggccttat      480
gtgtgcactg ggcattataa tggctctttt tgaccgcaca cgcactgaca agggtcaggt      540
cattgatgca aatatggtgg aaggaacagc atatttaagt tcttttctgt ggaaaactca      600
gaaatcgagt ctgtgggaag cacctcgagg acagaacatg ttggatggtg agcacctt      660
ctatacgact tacaggacag cagatgggga attcatggct gttggagcaa tagaacccca      720
gttctacgag ctgctgatca aaggacttgg actaaagtct gatgaacttc ccaatcagat      780
gagcatggat gattggccag aaatgaagaa gaagtttgca gatgtatttg caaagaagac      840
gaaggcagag tggtgtcaaa tctttgacgg cacagatgcc tgtgtgactc cggttctgac      900
tttttgaggag gttgttcatc atgatcacaa caaggaacgg ggctcgttta tcaccagtga      960
ggagcaggac gtgagccccc gccctgcacc tctgctgtta aacaccccag ccatcccttc     1020
tttcaaaagg gatcctttca taggagaaca cactgaggag atacttgaag aatttggatt     1080
cagccgcgaa gagatttatc agcttaactc agataaaatc attgaaagta ataaggtaaa     1140
agctagtctc taacttccag gcccacggct caagtgaatt tgaatactgc atttacagtg     1200
tagagtaaca cataacattg tatgcatgga aacatggagg aacagtatta cagtgtccta     1260
ccactctaat caagaaaaga attacagact ctgattctac agtgatgatt gaattctaaa     1320
aatggttatc attagggctt ttgatttata aaactttggg tacttatact aaattatggt     1380
agttattctg ccttccagtt tgcttgatat atttgttgat attaagattc ttgacttata     1440
ttttgaatgg gttctagtga aaaaggaatg atatattctt gaagacatcg atatacattt     1500
atttacactc ttgattctac aatgtagaaa atgaggaaat gccacaaatt gtatggtgat     1560
aaaagtcacg tgaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa     1620
a                                                                     1621
```

        <210> 108
        <211> 382
        <212> PRT
        <213> Homo sapien

        <400> 108
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Met Ala Leu Gln Gly Ile Ser Val Met Glu Leu Ser Gly Leu Ala Pro
1               5                  10                  15
Gly Pro Phe Cys Ala Met Val Leu Ala Asp Phe Gly Ala Arg Val Val
            20                  25                  30
Arg Val Asp Arg Pro Gly Ser Arg Tyr Asp Val Ser Arg Leu Gly Arg
        35                  40                  45
Gly Lys Arg Ser Leu Val Leu Asp Leu Lys Gln Pro Arg Gly Ala Ala
    50                  55                  60
Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro Phe
65                  70                  75                  80
Arg Arg Gly Val Met Glu Lys Leu Gln Leu Gly Pro Glu Ile Leu Gln
                85                  90                  95
Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
                100                 105                 110
Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
            115                 120                 125
Leu Ser Gly Val Leu Ser Lys Ile Gly Arg Ser Gly Glu Asn Pro Tyr
        130                 135                 140
Ala Pro Leu Asn Leu Leu Ala Asp Phe Ala Gly Gly Gly Leu Met Cys
145                 150                 155                 160
Ala Leu Gly Ile Ile Met Ala Leu Phe Asp Arg Thr Arg Thr Asp Lys
                165                 170                 175
Gly Gln Val Ile Asp Ala Asn Met Val Glu Gly Thr Ala Tyr Leu Ser
                180                 185                 190
Ser Phe Leu Trp Lys Thr Gln Lys Ser Ser Leu Trp Glu Ala Pro Arg
            195                 200                 205
Gly Gln Asn Met Leu Asp Gly Gly Ala Pro Phe Tyr Thr Thr Tyr Arg
```

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            210                      215                      220
Thr Ala Asp Gly Glu Phe Met Ala Val Gly Ala Ile Glu Pro Gln Phe
225                      230                      235                      240
Tyr Glu Leu Leu Ile Lys Gly Leu Gly Leu Lys Ser Asp Glu Leu Pro
                245                      250                      255
Asn Gln Met Ser Met Asp Asp Trp Pro Glu Met Lys Lys Lys Phe Ala
                260                      265                      270
Asp Val Phe Ala Lys Lys Thr Lys Ala Glu Trp Cys Gln Ile Phe Asp
        275                      280                      285
Gly Thr Asp Ala Cys Val Thr Pro Val Leu Thr Phe Glu Glu Val Val
        290                      295                      300
His His Asp His Asn Lys Glu Arg Gly Ser Phe Ile Thr Ser Glu Glu
305                      310                      315                      320
Gln Asp Val Ser Pro Arg Pro Ala Pro Leu Leu Leu Asn Thr Pro Ala
                325                      330                      335
Ile Pro Ser Phe Lys Arg Asp Pro Phe Ile Gly Glu His Thr Glu Glu
                340                      345                      350
Ile Leu Glu Glu Phe Gly Phe Ser Arg Glu Glu Ile Tyr Gln Leu Asn
        355                      360                      365
Ser Asp Lys Ile Ile Glu Ser Asn Lys Val Lys Ala Ser Leu
        370                      375                      380
```

```
        <210> 109
        <211> 1524
        <212> DNA
        <213> Homo sapien

        <400> 109
ggcacgaggc tgcgccaggg cctgagcgga ggcggggggca gcctcgccag cggggggcccc        60
gggcctggcc atgccctcact gagccagcgc ctgcgcctct acctcgccga cagctggaac       120
cagtgcgacc tagtggctct cacctgcttc ctcctgggcg tgggctgccg gctgaccccg        180
ggtttgtacc acctgggccg cactgtcctc tgcatcgact tcatggtttt cacggtgcgg        240
ctgcttcaca tcttcacggt caacaaacag ctggggccca agatcgtcat cgtgagcaag        300
atgatgaagg acgtgttctt cttcctcttc ttcctcggcg tgtggctggt agcctatggc        360
gtggccacgg aggggctcct gaggccacgg gacagtgact tcccaagtat cctgcgccgc        420
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gcccaggcgg gcacctgcgt ctcccagtat gccaactggc tggtggtgct gctcctcgtc        600
atcttcctgc tcgtggccaa catcctgctg gtcaacttgc tcattgccat gttcagttac        660
acattcggca agtacagggg caacagcgat ctctactgga aggcgcagcg ttaccgcctc        720
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cgcctcctgc tcaggcaatt gtgcaggcga ccccggagcc cccagccgtc ctccccggcc        840
ctcgagcatt tccgggttta cctttctaag gaagccgagc ggaagctgct aacgtgggaa        900
tcggtgcata aggagaactt tctgctggca cgcgctaggg acaagcggga gagcgactcc        960
gagcgtctga agcgcacgtc ccagaaggtg gacttggcac tgaaacagct gggacacatc      1020
cgcgagtacg aacagcgcct gaaagtgctg gagcgggagg tccagcagtg tagccgcgtc      1080
ctggggtggg tggccgaggc cctgagccgc tctgccttgc tgcccccagg tgggccgcca      1140
cccccctgacc tgcctgggtc caaagactga gccctgctgg cggacttcaa ggagaagccc      1200
ccacagggga ttttgctcct agagtaaggc tcatctgggc ctcggccccc gcacctggtg      1260
gccttgtcct tgaggtgagc cccatgtcca tctgggccac tgtcaggacc acctttggga      1320
gtgtcatcct tacaaaccac agcatgcccg gctcctccca gaaccagtcc cagcctggga      1380
ggatcaaggc ctggatcccg ggccgttatc catctggagg ctgcagggtc cttggggtaa      1440
cagggaccac agacccctca ccactcacag attcctcaca ctggggaaat aaagccattt      1500
cagaggaaaa aaaaaaaaaa aaaa                                            1524

        <210> 110
        <211> 3410
        <212> DNA
```

40

<213> Homo sapien

<400> 110

```
gggaaccagc ctgcacgcgc tggctccggg tgacagccgc gcgcctcggc caggatctga      60
gtgatgagac gtgtccccac tgaggtgccc cacagcagca ggtgttgagc atgggctgag     120
aagctggacc ggcaccaaag ggctggcaga aatgggcgcc tggctgattc ctaggcagtt     180
ggcggcagca aggaggagag gccgcagctt ctggagcaga gccgagacga agcagttctg     240
gagtgcctga acggcccccct gagccctacc cgcctggccc actatggtcc agaggctgtg     300
ggtgagccgc ctgctgcggc accggaaagc ccagctcttg ctggtcaacc tgctaacctt     360
tggcctggag gtgtgtttgg ccgcaggcat cacctatgtg ccgcctctgc tgctggaagt     420
gggggtagag gagaagttca tgaccatggt gctgggcatt ggtccagtgc tgggcctggt     480
ctgtgtcccg ctcctaggct cagccagtga ccactggcgt ggacgctatg gccgccgccg     540
gcccttcatc tgggcactgt ccttgggcat cctgctgagc ctctttctca tcccaagggc     600
cggctggcta gcagggctgc tgtgcccgga tcccaggccc ctggagctgg cactgctcat     660
cctgggcgtg gggctgctgg acttctgtgg ccaggtgtgc ttcactccac tggaggccct     720
gctctctgac ctcttccggg acccggacca ctgtcgccag gcctactctg tctatgcctt     780
catgatcagt cttgggggct gcctgggcta cctcctgcct gccattgact gggacaccag     840
tgccctggcc ccctacctgg gcacccagga ggagtgcctc tttggcctgc tcaccctcat     900
cttcctcacc tgcgtagcag ccacactgct ggtggctgag gaggcagcgc tgggccccac     960
cgagccagca gaagggctgt cggcccccctc cttgtcgccc cactgctgtc catgccgggc    1020
ccgcttggct ttccgggaacc tgggcgccct gcttccccgg ctgcaccagc tgtgctgccg    1080
catgccccgc accctgcgcc ggctcttcgt ggctgagctg tgcagctgga tggcactcat    1140
gaccttcacg ctgtttttaca cggatttcgt gggcgagggg ctgtaccagg gcgtgcccag    1200
agctgagccg ggcaccgagg cccggagaca ctatgatgaa ggcgttcgga tgggcagcct    1260
ggggctgttc ctgcagtgcg ccatctccct ggtcttctct ctggtcatgg accggctggt    1320
gcagcgattc ggcactcgag cagtctattt ggccagtgtg gcagctttcc ctgtggctgc    1380
cggtgccaca tgcctgtccc acagtgtggc cgtggtgaca gcttcagccg ccctcaccgg    1440
gttcaccttc tcagccctgc agatcctgcc ctacacactg gcctccctct accaccggga    1500
gaagcaggtg ttcctgccca aataccgagg ggacactgga ggtgctagca gtgaggacag    1560
cctgatgacc agcttcctgc caggccctaa gcctggagct cccttcccta atggacacgt    1620
gggtgctgga ggcagtggac tgctccacc tccaccgcg ctctgcgggg cctctgcctg    1680
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atccctgttt atgggctcca ttgtccagct cagccagtct gtcactgcct atatggtgtc    1860
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cgacttggcc aaatactcag cgtagaaaac ttccagcaca ttggggtgga gggcctgcct    1980
cactgggtcc cagctccccg ctcctgttag ccccatgggg ctgccgggct ggccgccagt    2040
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gctgcacagc tgggggctgg ggcgtccctc tcctctctcc ccagtctcta gggctgcctg    2160
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tttctaggat gaaacactcc tccatgggat ttgaacatat gacttatttg taggggaaga    2460
gtcctgaggg gcaacacaca agaaccaggt cccctcagcc cacagcactg tctttttgct    2520
gatccacccc cctcttacct tttatcagga tgtggcctgt tggtccttct gttgccatca    2580
cagagacaca ggcatttaaa tatttaactt atttatttaa caaagtagaa gggaatccat    2640
tgctagcttt tctgtgttgg tgtctaatat ttgggtaggg tgggggatcc ccaacaatca    2700
ggtcccctga gatagctggt cattgggctg atcattgcca gaatcttctt ctcctggggt    2760
ctggccccccc aaaatgccta acccaggacc ttggaaattc tactcatccc aaatgataat    2820
tccaaatgct gttacccaag gttagggtgt tgaaggaagg tagagggtgg ggcttcaggt    2880
ctcaacggct tccctaacca cccctcttct cttggcccag cctggttccc cccacttcca    2940
ctccctcta ctctctctag gactgggctg atgaaggcac tgcccaaaat ttcccctacc    3000
cccaactttc ccctacccce aactttcccc accagctcca caaccctgtt tggagctact    3060
gcaggaccag aagcacaaag tgcggtttcc caagcctttg tccatctcag cccccagagt    3120
atatctgtgc ttggggaatc tcacacagaa actcaggagc accccctgcc tgagctaagg    3180
gaggtcttat ctctcagggg gggtttaagt gccgtttgca ataatgtcgt cttatttatt    3240
tagcgggggtg aatatttat actgtaagtg agcaatcaga gtataatgtt tatggtgaca    3300
```

```
aaattaaagg ctttcttata tgtttaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa    3360
aaaaaaaara aaaaaaaaaa aaaaaaaaaa aaaaaaataa aaaaaaaaaa                3410
```

```
        <210> 111
        <211> 1289
        <212> DNA
        <213> Homo sapien

        <400> 111
agccaggcgt ccctctgcct gcccactcag tggcaacacc cgggagctgt tttgtccttt      60
gtggagcctc agcagttccc tctttcagaa ctcactgcca agagccctga acaggagcca     120
ccatgcagtg cttcagcttc attaagacca tgatgatcct cttcaatttg ctcatctttc     180
tgtgtggtgc agccctgttg gcagtgggca tctgggtgtc aatcgatggg gcatcctttc     240
tgaagatctt cgggccactg tcgtccagtg ccatgcagtt tgtcaacgtg ggctacttcc     300
tcatcgcagc cggcgttgtg gtctttgctc ttggtttcct gggctgctat ggtgctaaga     360
ctgagagcaa gtgtgccctc gtgacgttct tcttcatcct cctcctcatc ttcattgctg     420
aggttgcagc tgctgtggtc gccttggtgt acaccacaat ggctgagcac ttcctgacgt     480
tgctggtagt gcctgccatc aagaaagatt atggttccca ggaagacttc actcaagtgt     540
ggaacaccac catgaaaggg ctcaagtgct gtggcttcac caactatacg gattttgagg     600
actcacccta cttcaaagag aacagtgcct tcccccatt ctgttgcaat gacaacgtca     660
ccaacacagc caatgaaacc tgcaccaagc aaaaggctca cgaccaaaaa gtagagggtt     720
gcttcaatca gctttttgtat gacatccgaa ctaatgcagt caccgtgggt ggtgtggcag     780
ctggaattgg gggcctcgag ctggctgcca tgattgtgtc catgtatctg tactgcaatc     840
tacaataagt ccacttctgc ctctgccact actgctgcca catgggaact gtgaagaggc     900
accctggcaa gcagcagtga ttggggggag ggacaggatc taacaatgtc acttgggcca     960
gaatggacct gccctttctg ctccagactt ggggctagat agggaccact ccttttagcg    1020
atgcctgact ttccttccat tggtgggtgg atgggtgggg ggcattccag agcctctaag    1080
gtagccagtt ctgttgccca ttcccccagt ctattaaacc cttgatatgc ccctaggcc      1140
tagtggtgat cccagtgctc tactggggga tgagagaaag gcattttata gcctgggcat    1200
aagtgaaatc agcagagcct ctgggtggat gtgtagaagg cacttcaaaa tgcataaacc    1260
tgttacaatg ttaaaaaaaa aaaaaaaaa                                       1289
```

```
        <210> 112
        <211> 315
        <212> PRT
        <213> Homo sapien

        <400> 112
Met Val Phe Thr Val Arg Leu Leu His Ile Phe Thr Val Asn Lys Gln
1               5                   10                  15
Leu Gly Pro Lys Ile Val Ile Val Ser Lys Met Met Lys Asp Val Phe
            20                  25                  30
Phe Phe Leu Phe Phe Leu Gly Val Trp Leu Val Ala Tyr Gly Val Ala
        35                  40                  45
Thr Glu Gly Leu Leu Arg Pro Arg Asp Ser Asp Phe Pro Ser Ile Leu
    50                  55                  60
Arg Arg Val Phe Tyr Arg Pro Tyr Leu Gln Ile Phe Gly Gln Ile Pro
65                  70                  75                  80
Gln Glu Asp Met Asp Val Ala Leu Met Glu His Ser Asn Cys Ser Ser
                85                  90                  95
Glu Pro Gly Phe Trp Ala His Pro Pro Gly Ala Gln Ala Gly Thr Cys
            100                 105                 110
Val Ser Gln Tyr Ala Asn Trp Leu Val Val Leu Leu Leu Val Ile Phe
        115                 120                 125
Leu Leu Val Ala Asn Ile Leu Leu Val Asn Leu Leu Ile Ala Met Phe
    130                 135                 140
Ser Tyr Thr Phe Gly Lys Val Gln Gly Asn Ser Asp Leu Tyr Trp Lys
145                 150                 155                 160
```

42

```
Ala Gln Arg Tyr Arg Leu Ile Arg Glu Phe His Ser Arg Pro Ala Leu
            165                 170                 175
Ala Pro Pro Phe Ile Val Ile Ser His Leu Arg Leu Leu Leu Arg Gln
            180                 185                 190
Leu Cys Arg Arg Pro Arg Ser Pro Gln Pro Ser Ser Pro Ala Leu Glu
            195                 200                 205
His Phe Arg Val Tyr Leu Ser Lys Glu Ala Glu Arg Lys Leu Leu Thr
    210                 215                 220
Trp Glu Ser Val His Lys Glu Asn Phe Leu Leu Ala Arg Ala Arg Asp
225                 230                 235                 240
Lys Arg Glu Ser Asp Ser Glu Arg Leu Lys Arg Thr Ser Gln Lys Val
            245                 250                 255
Asp Leu Ala Leu Lys Gln Leu Gly His Ile Arg Glu Tyr Glu Gln Arg
            260                 265                 270
Leu Lys Val Leu Glu Arg Glu Val Gln Gln Cys Ser Arg Val Leu Gly
            275                 280                 285
Trp Val Ala Glu Ala Leu Ser Arg Ser Ala Leu Leu Pro Pro Gly Gly
    290                 295                 300
Pro Pro Pro Pro Asp Leu Pro Gly Ser Lys Asp
305                 310                 315

        <210> 113
        <211> 553
        <212> PRT
        <213> Homo sapien

        <400> 113
Met Val Gln Arg Leu Trp Val Ser Arg Leu Leu Arg His Arg Lys Ala
1               5                   10                  15
Gln Leu Leu Leu Val Asn Leu Leu Thr Phe Gly Leu Glu Val Cys Leu
            20                  25                  30
Ala Ala Gly Ile Thr Tyr Val Pro Leu Leu Leu Glu Val Gly Val
            35                  40                  45
Glu Glu Lys Phe Met Thr Met Val Leu Gly Ile Gly Pro Val Leu Gly
    50                  55                  60
Leu Val Cys Val Pro Leu Leu Gly Ser Ala Ser Asp His Trp Arg Gly
65                  70                  75                  80
Arg Tyr Gly Arg Arg Arg Pro Phe Ile Trp Ala Leu Ser Leu Gly Ile
            85                  90                  95
Leu Leu Ser Leu Phe Leu Ile Pro Arg Ala Gly Trp Leu Ala Gly Leu
            100                 105                 110
Leu Cys Pro Asp Pro Arg Pro Leu Glu Leu Ala Leu Leu Ile Leu Gly
            115                 120                 125
Val Gly Leu Leu Asp Phe Cys Gly Gln Val Cys Phe Thr Pro Leu Glu
            130                 135                 140
Ala Leu Leu Ser Asp Leu Phe Arg Asp Pro Asp His Cys Arg Gln Ala
145                 150                 155                 160
Tyr Ser Val Tyr Ala Phe Met Ile Ser Leu Gly Gly Cys Leu Gly Tyr
            165                 170                 175
Leu Leu Pro Ala Ile Asp Trp Asp Thr Ser Ala Leu Ala Pro Tyr Leu
            180                 185                 190
Gly Thr Gln Glu Glu Cys Leu Phe Gly Leu Leu Thr Leu Ile Phe Leu
            195                 200                 205
Thr Cys Val Ala Ala Thr Leu Leu Val Ala Glu Glu Ala Ala Leu Gly
    210                 215                 220
Pro Thr Glu Pro Ala Glu Gly Leu Ser Ala Pro Ser Leu Ser Pro His
225                 230                 235                 240
Cys Cys Pro Cys Arg Ala Arg Leu Ala Phe Arg Asn Leu Gly Ala Leu
```

43

```
                        245                     250                     255
Leu Pro Arg Leu His Gln Leu Cys Cys Arg Met Pro Arg Thr Leu Arg
          260                     265                     270
Arg Leu Phe Val Ala Glu Leu Cys Ser Trp Met Ala Leu Met Thr Phe
          275                     280                     285
Thr Leu Phe Tyr Thr Asp Phe Val Gly Glu Gly Leu Tyr Gln Gly Val
      290                     295                     300
Pro Arg Ala Glu Pro Gly Thr Glu Ala Arg Arg His Tyr Asp Glu Gly
305                     310                     315                     320
Val Arg Met Gly Ser Leu Gly Leu Phe Leu Gln Cys Ala Ile Ser Leu
                  325                     330                     335
Val Phe Ser Leu Val Met Asp Arg Leu Val Gln Arg Phe Gly Thr Arg
              340                     345                     350
Ala Val Tyr Leu Ala Ser Val Ala Ala Phe Pro Val Ala Ala Gly Ala
          355                     360                     365
Thr Cys Leu Ser His Ser Val Ala Val Val Thr Ala Ser Ala Ala Leu
      370                     375                     380
Thr Gly Phe Thr Phe Ser Ala Leu Gln Ile Leu Pro Tyr Thr Leu Ala
385                     390                     395                     400
Ser Leu Tyr His Arg Glu Lys Gln Val Phe Leu Pro Lys Tyr Arg Gly
                  405                     410                     415
Asp Thr Gly Gly Ala Ser Ser Glu Asp Ser Leu Met Thr Ser Phe Leu
              420                     425                     430
Pro Gly Pro Lys Pro Gly Ala Pro Phe Pro Asn Gly His Val Gly Ala
          435                     440                     445
Gly Gly Ser Gly Leu Leu Pro Pro Pro Ala Leu Cys Gly Ala Ser
      450                     455                     460
Ala Cys Asp Val Ser Val Arg Val Val Val Gly Glu Pro Thr Glu Ala
465                     470                     475                     480
Arg Val Val Pro Gly Arg Gly Ile Cys Leu Asp Leu Ala Ile Leu Asp
                  485                     490                     495
Ser Ala Phe Leu Leu Ser Gln Val Ala Pro Ser Leu Phe Met Gly Ser
              500                     505                     510
Ile Val Gln Leu Ser Gln Ser Val Thr Ala Tyr Met Val Ser Ala Ala
          515                     520                     525
Gly Leu Gly Leu Val Ala Ile Tyr Phe Ala Thr Gln Val Val Phe Asp
      530                     535                     540
Lys Ser Asp Leu Ala Lys Tyr Ser Ala
545                     550
```

```
        <210> 114
        <211> 241
        <212> PRT
        <213> Homo sapien

        <400> 114
Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu
1               5                       10                      15
Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
              20                      25                      30
Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser
          35                      40                      45
Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
      50                      55                      60
Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr
65                      70                      75                      80
Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile
              85                      90                      95
```

44

```
Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr
            100                 105                 110
Met Ala Glu His Phe Leu Thr Leu Leu Val Val Pro Ala Ile Lys Lys
            115                 120                 125
Asp Tyr Gly Ser Gln Glu Asp Phe Thr Gln Val Trp Asn Thr Thr Met
    130                 135                 140
Lys Gly Leu Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp
145                 150                 155                 160
Ser Pro Tyr Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn
                165                 170                 175
Asp Asn Val Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala
            180                 185                 190
His Asp Gln Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile
        195                 200                 205
Arg Thr Asn Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly
    210                 215                 220
Leu Glu Leu Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu
225                 230                 235                 240
Gln
```

```
        <210> 115
        <211> 366
        <212> DNA
        <213> Homo sapien

        <400> 115
gctctttctc tcccctcctc tgaatttaat tctttcaact tgcaatttgc aaggattaca          60
catttcactg tgatgtatat tgtgttgcaa aaaaaaaaaa gtgtctttgt ttaaaattac         120
ttggtttgtg aatccatctt gctttttccc cattggaact agtcattaac ccatctctga         180
actggtagaa aaacatctga agagctagtc tatcagcatc tgacaggtga attggatggt         240
tctcagaacc atttcaccca gacagcctgt ttctatcctg tttaataaat tagtttgggt         300
tctctacatg cataacaaac cctgctccaa tctgtcacat aaaagtctgt gacttgaagt         360
ttagtc                                                                     366
```

```
        <210> 116
        <211> 282
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(282)
        <223> n = A,T,C or G

        <400> 116
acaaagatga accatttcct atattatagc aaaattaaaa tctacccgta ttctaatatt          60
gagaaatgag atnaaacaca atnttataaa gtctacttag agaagatcaa gtgacctcaa         120
agactttact attttcatat tttaagacac atgatttatc ctattttagt aacctggttc         180
atacgttaaa caaaggataa tgtgaacagc agagaggatt tgttggcaga aaatctatgt         240
tcaatctnga actatctana tcacagacat ttctattcct tt                            282
```

```
        <210> 117
        <211> 305
        <212> DNA
        <213> Homo sapien

        <220>
```

45

```
        <221> misc_feature
        <222> (1)...(305)
        <223> n = A,T,C or G

        <400> 117
acacatgtcg cttcactgcc ttcttagatg cttctggtca acatanagga acagggacca        60
tatttatcct ccctcctgaa acaattgcaa aataanacaa aatatatgaa acaattgcaa       120
aataaggcaa aatatatgaa acaacaggtc tcgagatatt ggaaatcagt caatgaagga       180
tactgatccc tgatcactgt cctaatgcag gatgtgggaa acagatgagg tcacctctgt       240
gactgcccca gcttactgcc tgtagagagt ttctangctg cagttcagac agggagaaat       300
tgggt                                                                   305

        <210> 118
        <211> 71
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(71)
        <223> n = A,T,C or G

        <400> 118
accaaggtgt ntgaatctct gacgtgggga tctctgattc ccgcacaatc tgagtggaaa        60
aantcctggg t                                                            71

        <210> 119
        <211> 212
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(212)
        <223> n = A,T,C or G

        <400> 119
actccggttg gtgtcagcag cacgtggcat tgaacatngc aatgtggagc ccaaaccaca        60
gaaaatgggg tgaaattggc caactttcta tnaacttatg ttggcaantt tgccaccaac       120
agtaagctgg cccttctaat aaaagaaaat tgaaaggttt ctcactaanc ggaattaant       180
aatggantca aganactccc aggcctcagc gt                                      212

        <210> 120
        <211> 90
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(90)
        <223> n = A,T,C or G

        <400> 120
actcgttgca natcaggggc cccccagagt caccgttgca ggagtccttc tggtcttgcc        60
ctccgccggc gcagaacatg ctggggtggt                                        90

        <210> 121
        <211> 218
```

46

```
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(218)
        <223> n = A,T,C or G

        <400> 121
tgtancgtga anacgacaga nagggttgtc aaaaatggag aanccttgaa gtcattttga        60
gaataagatt tgctaaaaga tttggggcta aaacatggtt attgggagac atttctgaag       120
atatncangt aaattangga atgaattcat ggttctttg ggaattcctt tacgatngcc        180
agcatanact tcatgtgggg atancagcta cccttgta                              218

        <210> 122
        <211> 171
        <212> DNA
        <213> Homo sapien

        <400> 122
taggggtgta tgcaactgta aggacaaaaa ttgagactca actggcttaa ccaataaagg        60
catttgttag ctcatggaac aggaagtcgg atggtggggc atcttcagtg ctgcatgagt       120
caccacccccg gcggggtcat ctgtgccaca ggtccctgtt gacagtgcgg t              171

        <210> 123
        <211> 76
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(76)
        <223> n = A,T,C or G

        <400> 123
tgtagcgtga agacnacaga atggtgtgtg ctgtgctatc caggaacaca tttattatca        60
ttatcaanta ttgtgt                                                      76

        <210> 124
        <211> 131
        <212> DNA
        <213> Homo sapien

        <400> 124
acctttcccc aaggccaatg tcctgtgtgc taactggccg gctgcaggac agctgcaatt        60
caatgtgctg ggtcatatgg aggggaggag actctaaaat agccaatttt attctcttgg       120
ttaagatttg t                                                          131

        <210> 125
        <211> 432
        <212> DNA
        <213> Homo sapien

        <400> 125
actttatcta ctggctatga aatagatggt ggaaaattgc gttaccaact ataccactgg        60
cttgaaaaag aggtgatagc tcttcagagg acttgtgact tttgctcaga tgctgaagaa       120
ctacagtctg catttggcag aaatgaagat gaatttggat taaatgagga tgctgaagat       180
ttgcctcacc aaacaaaagt gaaacaactg agagaaaatt ttcaggaaaa aagacagtgg       240
```

47

```
ctcttgaagt atcagtcact tttgagaatg tttcttagtt actgcatact tcatggatcc      300
catggtgggg gtcttgcatc tgtaagaatg gaattgattt tgcttttgca agaatctcag      360
caggaaacat cagaaccact attttctagc cctctgtcag agcaaacctc agtgcctctc      420
ctctttgctt gt                                                          432
```

```
        <210> 126
        <211> 112
        <212> DNA
        <213> Homo sapien
```

```
        <400> 126
acacaacttg aatagtaaaa tagaaactga gctgaaattt ctaattcact ttctaaccat       60
agtaagaatg atatttcccc ccagggatca ccaaatattt ataaaaattt gt              112
```

```
        <210> 127
        <211> 54
        <212> DNA
        <213> Homo sapien
```

```
        <400> 127
accacgaaac cacaaacaag atggaagcat caatccactt gccaagcaca gcag             54
```

```
        <210> 128
        <211> 323
        <212> DNA
        <213> Homo sapien
```

```
        <400> 128
acctcattag taattgtttt gttgtttcat tttttctaa tgtctcccct ctaccagctc       60
acctgagata acagaatgaa aatggaagga cagccagatt tctcctttgc tctctgctca      120
ttctctctga agtctaggtt acccattttg gggacccatt ataggcaata aacacagttc      180
ccaaagcatt tggacagttt cttgttgtgt tttagaatgg ttttcctttt tcttagcctt      240
ttcctgcaaa aggctcactc agtcccttgc ttgctcagtg gactgggctc cccagggcct      300
aggctgcctt cttttccatg tcc                                              323
```

```
        <210> 129
        <211> 192
        <212> DNA
        <213> Homo sapien
```

```
        <220>
        <221> misc_feature
        <222> (1)...(192)
        <223> n = A,T,C or G
```

```
        <400> 129
acatacatgt gtgtatattt ttaaatatca cttttgtatc actctgactt tttagcatac       60
tgaaaacaca ctaacataat ttntgtgaac catgatcaga tacaacccaa atcattcatc      120
tagcacattc atctgtgata naaagatagg tgagtttcat ttccttcacg ttggccaatg      180
gataaacaaa gt                                                          192
```

```
        <210> 130
        <211> 362
        <212> DNA
        <213> Homo sapien
```

```
        <220>
        <221> misc_feature
```

48

```
<222> (1)...(362)
<223> n = A,T,C or G

<400> 130
cccttttta tggaatgagt agactgtatg tttgaanatt tanccacaac ctctttgaca        60
tataatgacg caacaaaaag gtgctgttta gtcctatggt tcagtttatg cccctgacaa      120
gtttccattg tgttttgccg atcttctggc taatcgtggt atcctccatg ttattagtaa      180
ttctgtattc cattttgtta acgcctggta gatgtaacct gctangaggc taactttata      240
cttatttaaa agctcttatt ttgtggtcat taaaatggca atttatgtgc agcactttat      300
tgcagcagga agcacgtgtg ggttggttgt aaagctcttt gctaatctta aaaagtaatg      360
gg                                                                     362


<210> 131
<211> 332
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(332)
<223> n = A,T,C or G

<400> 131
ctttttgaaa gatcgtgtcc actcctgtgg acatcttgtt ttaatggagt ttcccatgca        60
gtangactgg tatggttgca gctgtccaga taaaaacatt tgaagagctc caaaatgaga      120
gttctcccag gttcgccctg ctgctccaag tctcagcagc agcctctttt aggaggcatc      180
ttctgaacta gattaaggca gcttgtaaat ctgatgtgat ttggtttatt atccaactaa      240
cttccatctg ttatcactgg agaaagccca gactccccan gacnggtacg gattgtgggc      300
atanaaggat tgggtgaagc tggcgttgtg gt                                    332


<210> 132
<211> 322
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(322)
<223> n = A,T,C or G

<400> 132
acttttgcca ttttgtatat ataaacaatc ttgggacatt ctcctgaaaa ctaggtgtcc        60
agtggctaag agaactcgat ttcaagcaat tctgaaagga aaaccagcat gacacagaat      120
ctcaaattcc caaacagggg ctctgtggga aaaatgaggg aggacctttg tatctcgggt      180
tttagcaagt taaaatgaan atgacaggaa aggcttattt atcaacaaag agaagagttg      240
ggatgcttct aaaaaaaact ttggtagaga aaataggaat gctnaatcct agggaagcct      300
gtaacaatct acaattggtc ca                                               322


<210> 133
<211> 278
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(278)
<223> n = A,T,C or G
```

49

```
        <400> 133
acaagccttc acaagtttaa ctaaattggg attaatcttt ctgtanttat ctgcataatt          60
cttgtttttc tttccatctg gctcctgggt tgacaatttg tggaaacaac tctattgcta         120
ctatttaaaa aaaatcacaa atctttccct ttaagctatg ttnaattcaa actattcctg         180
ctattcctgt tttgtcaaag aaattatatt tttcaaaata tgtntatttg tttgatgggt         240
cccacgaaac actaataaaa accacagaga ccagcctg                                 278


        <210> 134
        <211> 121
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(121)
        <223> n = A,T,C or G

        <400> 134
gtttanaaaa cttgtttagc tccatagagg aaagaatgtt aaactttgta ttttaaaaca          60
tgattctctg aggttaaact tggttttcaa atgttatttt tacttgtatt ttgcttttgg         120
t                                                                         121


        <210> 135
        <211> 350
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(350)
        <223> n = A,T,C or G

        <400> 135
acttanaacc atgcctagca catcagaatc cctcaaagaa catcagtata atcctatacc          60
atancaagtg gtgactggtt aagcgtgcga caaaggtcag ctggcacatt acttgtgtgc         120
aaacttgata cttttgttct aagtaggaac tagtatacag tncctaggan tggtactcca         180
gggtgccccc caactcctgc agccgctcct ctgtgccagn ccctgnaagg aactttcgct         240
ccacctcaat caagccctgg gccatgctac ctgcaattgg ctgaacaaac gtttgctgag         300
ttcccaagga tgcaaagcct ggtgctcaac tcctggggcg tcaactcagt                    350


        <210> 136
        <211> 399
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(399)
        <223> n = A,T,C or G

        <400> 136
tgtaccgtga agacgacaga agttgcatgg cagggacagg gcagggccga ggccagggtt          60
gctgtgattg tatccgaata ntcctcgtga gaaaagataa tgagatgacg tgagcagcct         120
gcagacttgt gtctgccttc aanaagccag acaggaaggc cctgcctgcc ttggctctga         180
cctggcggcc agccagccag ccacaggtgg gcttcttcct tttgtggtga caacnccaag         240
aaaactgcag aggcccaggg tcaggtgtna gtgggtangt gaccataaaa caccaggtgc         300
tcccaggaac ccgggcaaag gccatcccca cctacagcca gcatgcccac tggcgtgatg         360
ggtgcagang gatgaagcag ccagntgttc tgctgtggt                                399
```

50

```
        <210> 137
        <211> 165
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(165)
        <223> n = A,T,C or G

        <400> 137
actggtgtgg tnggggggtga tgctggtggt anaagttgan gtgacttcan gatggtgtgt          60
ggaggaagtg tgtgaacgta gggatgtaga ngttttggcc gtgctaaatg agcttcggga         120
ttggctggtc ccactggtgg tcactgtcat tggtgggggtt cctgt                        165

        <210> 138
        <211> 338
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(338)
        <223> n = A,T,C or G

        <400> 138
actcactgga atgccacatt cacaacagaa tcagaggtct gtgaaaacat taatggctcc          60
ttaacttctc cagtaagaat cagggacttg aaatggaaac gttaacagcc acatgcccaa         120
tgctgggcag tctcccatgc cttccacagt gaaagggctt gagaaaaatc acatccaatg         180
tcatgtgttt ccagccacac caaaaggtgc ttggggtgga gggctggggg catananggt         240
cangcctcag gaagcctcaa gttccattca gctttgccac tgtacattcc ccatntttaa         300
aaaaactgat gcctttttttt ttttttttttg taaaattc                               338

        <210> 139
        <211> 382
        <212> DNA
        <213> Homo sapien

        <400> 139
gggaatcttg gttttttggca tctggtttgc ctatagccga ggccactttg acagaacaaa          60
gaaagggact tcgagtaaga aggtgattta cagccagcct agtgcccgaa gtgaaggaga         120
attcaaacag acctcgtcat tcctggtgtg agcctggtcg gctcaccgcc tatcatctgc         180
atttgcctta ctcaggtgct accggactct ggccctgat gtctgtagtt tcacaggatg         240
ccttatttgt cttctacacc ccacagggcc ccctacttct tcggatgtgt ttttaataat        300
gtcagctatg tgccccatcc tccttcatgc cctccctccc tttcctacca ctgctgagtg   `     360
gcctggaact tgttttaaagt gt                                                 382

        <210> 140
        <211> 200
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(200)
        <223> n = A,T,C or G
```

51

```
<400> 140
accaaanctt ctttctgttg tgttngattt tactataggg gtttngcttn ttctaaanat        60
actttttcatt taacancttt tgttaagtgt caggctgcac tttgctccat anaattattg      120
ttttcacatt tcaacttgta tgtgtttgtc tcttanagca ttggtgaaat cacatatttt      180
atattcagca taaaggagaa                                                   200

       <210> 141
       <211> 335
       <212> DNA
       <213> Homo sapien

       <220>
       <221> misc_feature
       <222> (1)...(335)
       <223> n = A,T,C or G

       <400> 141
acttttatttt caaaacactc atatgttgca aaaaacacat agaaaaataa agtttggtgg        60
gggtgctgac taaacttcaa gtcacagact tttatgtgac agattggagc agggtttgtt      120
atgcatgtag agaacccaaa ctaatttatt aaacaggata gaaacaggct gtctgggtga      180
aatggttctg agaaccatcc aattcacctg tcagatgctg atanactagc tcttcagatg      240
ttttttctacc agttcagaga tnggttaatg actanttcca atggggaaaa agcaagatgg      300
attcacaaac caagtaattt taaacaaaga cactt                                  335

       <210> 142
       <211> 459
       <212> DNA
       <213> Homo sapien

       <220>
       <221> misc_feature
       <222> (1)...(459)
       <223> n = A,T,C or G

       <400> 142
accaggttaa tattgccaca tatatccttt ccaattgcgg gctaaacaga cgtgtattta        60
gggttgttta aagacaaccc agcttaatat caagagaaat tgtgacctttt catggagtat      120
ctgatggaga aaacactgag ttttgacaaa tcttatttta ttcagatagc agtctgatca      180
cacatggtcc aacaacactc aaataataaa tcaaatatna tcagatgtta aagattggtc      240
ttcaaacatc atagccaatg atgccccgct tgcctataat ctctccgaca taaaaccaca      300
tcaacacctc agtggccacc aaaccattca gcacagcttc cttaactgtg agctgtttga      360
agctaccagt ctgagcacta ttgactatnt ttttcangct ctgaatagct ctaggatct      420
cagcangggt gggaggaacc agctcaacct tggcgtant                              459

       <210> 143
       <211> 140
       <212> DNA
       <213> Homo sapien

       <400> 143
acatttcctt ccaccaagtc aggactcctg gcttctgtgg gagttcttat cacctgaggg        60
aaatccaaac agtctctcct agaaaggaat agtgtcacca accccaccca tctccctgag      120
accatccgac ttccctgtgt                                                   140

       <210> 144
       <211> 164
       <212> DNA
       <213> Homo sapien
```

```
        <220>
        <221> misc_feature
        <222> (1)...(164)
        <223> n = A,T,C or G

        <400> 144
acttcagtaa caacatacaa taacaacatt aagtgtatat tgccatcttt gtcattttct        60
atctatacca ctctcccttc tgaaaacaan aatcactanc caatcactta tacaaatttg       120
aggcaattaa tccatatttg ttttcaataa ggaaaaaaag atgt                        164


        <210> 145
        <211> 303
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(303)
        <223> n = A,T,C or G

        <400> 145
acgtagacca tccaactttg tatttgtaat ggcaaacatc cagnagcaat tcctaaacaa        60
actggagggt atttataccc aattatccca ttcattaaca tgccctcctc ctcaggctat       120
gcaggacagc tatcataagt cggcccaggc atccagatac taccatttgt ataaacttca       180
gtaggggagt ccatccaagt gacaggtcta atcaaaggag gaaatggaac ataagcccag       240
tagtaaaatn ttgcttagct gaaacagcca caaaagactt accgccgtgg tgattaccat       300
caa                                                                     303


        <210> 146
        <211> 327
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(327)
        <223> n = A,T,C or G

        <400> 146
actgcagctc aattagaagt ggtctctgac tttcatcanc ttctccctgg gctccatgac        60
actggcctgg agtgactcat tgctctggtt ggttgagaga gctcctttgc caacaggcct       120
ccaagtcagg gctgggattt gtttcctttc cacattctag caacaatatg ctggccactt       180
cctgaacagg gagggtggga ggagccagca tggaacaagc tgccactttc taaagtagcc       240
agacttgccc ctgggcctgt cacacctact gatgaccttc tgtgcctgca ggatggaatg       300
tagggtgag ctgtgtgact ctatggt                                            327


        <210> 147
        <211> 173
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(173)
        <223> n = A,T,C or G

        <400> 147
```

53

```
acattgtttt tttgagataa agcattgana gagctctcct taacgtgaca caatggaagg      60
actggaacac atacccacat ctttgttctg agggataatt ttctgataaa gtcttgctgt     120
atattcaagc acatatgtta tatattattc agttccatgt ttatagccta gtt           173
```

        <210> 148
        <211> 477
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(477)
        <223> n = A,T,C or G

        <400> 148
```
acaaccactt tatctcatcg aattttaac ccaaactcac tcactgtgcc tttctatcct      60
atgggatata ttatttgatg ctccatttca tcacacatat atgaataata cactcatact     120
gccctactac ctgctgcaat aatcacattc ccttcctgtc ctgaccctga agccattggg     180
gtggtcctag tggccatcag tccangcctg caccttgagc ccttgagctc cattgctcac     240
nccancccac ctcaccgacc ccatcctctt acacagctac ctccttgctc tctaacccca     300
tagattatnt ccaaattcag tcaattaagt tactattaac actctacccg acatgtccag     360
caccactggt aagccttctc cagccaacac acacacacac acacncacac acacacatat     420
ccaggcacag gctacctcat cttcacaatc accctttaa ttaccatgct atggtgg         477
```

        <210> 149
        <211> 207
        <212> DNA
        <213> Homo sapien

        <400> 149
```
acagttgtat tataatatca agaaataaac ttgcaatgag agcatttaag agggaagaac      60
taacgtattt tagagagcca aggaaggttt ctgtggggag tgggatgtaa ggtggggcct     120
gatgataaat aagagtcagc caggtaagtg ggtggtgtgg tatgggcaca gtgaagaaca     180
tttcaggcag agggaacagc agtgaaa                                        207
```

        <210> 150
        <211> 111
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(111)
        <223> n = A,T,C or G

        <400> 150
```
accttgattt cattgctgct ctgatggaaa cccaactatc taatttagct aaaacatggg      60
cacttaaatg tggtcagtgt ttggacttgt taactantgg catctttggg t             111
```

        <210> 151
        <211> 196
        <212> DNA
        <213> Homo sapien

        <400> 151
```
agcgcggcag gtcatattga acattccaga tacctatcat tactcgatgc tgttgataac      60
agcaagatgg ctttgaactc agggtcacca ccagctattg gaccttacta tgaaaaccat     120
ggataccaac cggaaaaccc ctatcccgca cagcccactg tggtccccac tgtctacgag     180
```

54

```
gtgcatccgg ctcagt                                                              196

        <210> 152
        <211> 132
        <212> DNA
        <213> Homo sapien

        <400> 152
acagcacttt cacatgtaag aagggagaaa ttcctaaatg taggagaaag ataacagaac             60
cttccccttt tcatctagtg gtggaaacct gatgctttat gttgacagga atagaaccag            120
gagggagttt gt                                                                132

        <210> 153
        <211> 285
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(285)
        <223> n = A,T,C or G

        <400> 153
acaanaccca nganaggcca ctggccgtgg tgtcatggcc tccaaacatg aaagtgtcag             60
cttctgctct tatgtcctca tctgacaact ctttaccatt tttatcctcg ctcagcagga           120
gcacatcaat aaagtccaaa gtcttggact tggccttggc ttggaggaag tcatcaacac           180
cctggctagt gagggtgcgg cgccgctcct ggatgacggc atctgtgaag tcgtgcacca           240
gtctgcaggc cctgtggaag cgccgtccac acggagtnag gaatt                           285

        <210> 154
        <211> 333
        <212> DNA
        <213> Homo sapien

        <400> 154
accacagtcc tgttgggcca gggcttcatg acccttctg tgaaaagcca tattatcacc            60
accccaaatt tttccttaaa tatctttaac tgaaggggtc agcctcttga ctgcaaagac           120
cctaagccgg ttacacagct aactcccact ggccctgatt tgtgaaattg ctgctgcctg           180
attggcacag gagtcgaagg tgttcagctc ccctcctccg tggaacgaga ctctgatttg           240
agtttcacaa attctcgggc cacctcgtca ttgctcctct gaaataaaat ccggagaatg           300
gtcaggcctg tctcatccat atggatcttc cgg                                        333

        <210> 155
        <211> 308
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(308)
        <223> n = A,T,C or G

        <400> 155
actggaaata ataaaaccca catcacagtg ttgtgtcaaa gatcatcagg gcatggatgg           60
gaaagtgctt tgggaactgt aaagtgccta acacatgatc gatgattttt gttataatat          120
ttgaatcacg gtgcatacaa actctcctgc ctgctcctcc tgggccccag ccccagcccc          180
atcacagctc actgctctgt tcatccaggc ccagcatgta gtggctgatt cttcttggct          240
gcttttagcc tccanaagtt tctctgaagc caaccaaacc tctangtgta aggcatgctg          300
```

55

```
gccctggt                                                           308

        <210> 156
        <211> 295
        <212> DNA
        <213> Homo sapien

        <400> 156
accttgctcg gtgcttggaa catattagga actcaaaata tgagatgata acagtgccta      60
ttattgatta ctgagagaac tgttagacat ttagttgaag attttctaca caggaactga     120
gaataggaga ttatgtttgg ccctcatatt ctctcctatc ctccttgcct cattctatgt     180
ctaatatatt ctcaatcaaa taaggttagc ataatcagga aatcgaccaa ataccaatat     240
aaaaccagat gtctatcctt aagattttca aatagaaaac aaattaacag actat          295

        <210> 157
        <211> 126
        <212> DNA
        <213> Homo sapien

        <400> 157
acaagtttaa atagtgctgt cactgtgcat gtgctgaaat gtgaaatcca ccacatttct      60
gaagagcaaa acaaattctg tcatgtaatc tctatcttgg gtcgtgggta tatctgtccc     120
cttagt                                                             126

        <210> 158
        <211> 442
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(442)
        <223> n = A,T,C or G

        <400> 158
acccactggt cttggaaaca cccatcctta atacgatgat ttttctgtcg tgtgaaaatg      60
aanccagcag gctgccccta gtcagtcctt ccttccagag aaaaagagat ttgagaaagt     120
gcctgggtaa ttcaccatta atttcctccc ccaaactctc tgagtcttcc cttaatattt     180
ctggtggttc tgaccaaagc aggtcatggt ttgttgagca tttgggatcc cagtgaagta     240
natgtttgta gccttgcata cttagccctt cccacgcaca aacggagtgg cagagtggtg     300
ccaaccctgt tttcccagtc cacgtagaca gattcacagt gcggaattct ggaagctgga     360
nacagacggg ctctttgcag agccgggact ctgagangga catgagggcc tctgcctctg     420
tgttcattct ctgatgtcct gt                                           442

        <210> 159
        <211> 498
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(498)
        <223> n = A,T,C or G

        <400> 159
acttccaggt aacgttgttg tttccgttga gcctgaactg atgggtgacg ttgtaggttc      60
tccaacaaga actgaggttg cagagcgggt agggaagagt gctgttccag ttgcacctgg     120
gctgctgtgg actgttgttg attcctcact acggcccaag gttgtggaac tggcanaaag     180
```

56

```
gtgtgttgtt gganttgagc tcgggcggct gtggtaggtt gtgggctctt caacaggggc    240
tgctgtggtg ccgggangtg aangtgttgt gtcacttgag cttggccagc tctggaaagt    300
antanattct tcctgaaggc cagcgcttgt ggagctggca ngggtcantg ttgtgtgtaa    360
cgaaccagtg ctgctgtggg tgggtgtana tcctccacaa agcctgaagt tatggtgtcn    420
tcaggtaana atgtggtttc agtgtccctg ggcngctgtg gaaggttgta nattgtcacc    480
aagggaataa gctgtggt                                                  498
```

```
        <210> 160
        <211> 380
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(380)
        <223> n = A,T,C or G

        <400> 160
acctgcatcc agcttccctg ccaaactcac aaggagacat caacctctag acagggaaac     60
agcttcagga tacttccagg agacagagcc accagcagca aaacaaatat tcccatgcct    120
ggagcatggc atagaggaag ctganaaatg tggggtctga ggaagccatt tgagtctggc    180
cactagacat ctcatcagcc acttgtgtga agagatgccc catgacccca gatgcctctc    240
ccacccttac ctccatctca cacacttgag ctttccactc tgtataattc taacatcctg    300
gagaaaaatg gcagtttgac cgaacctgtt cacaacggta gaggctgatt tctaacgaaa    360
cttgtagaat gaagcctgga                                                380
```

```
        <210> 161
        <211> 114
        <212> DNA
        <213> Homo sapien

        <400> 161
actccacatc ccctctgagc aggcggttgt cgttcaaggt gtatttggcc ttgcctgtca     60
cactgtccac tggcccctta tccacttggt gcttaatccc tcgaaagagc atgt          114
```

```
        <210> 162
        <211> 177
        <212> DNA
        <213> Homo sapien

        <400> 162
actttctgaa tcgaatcaaa tgatacttag tgtagtttta atatcctcat atatatcaaa     60
gttttactac tctgataatt ttgtaaacca ggtaaccaga acatccagtc atacagcttt    120
tggtgatata taacttggca ataacccagt ctggtgatac ataaaactac tcactgt       177
```

```
        <210> 163
        <211> 137
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(137)
        <223> n = A,T,C or G

        <400> 163
catttataca gacaggcgtg aagacattca cgacaaaaac gcgaaattct atcccgtgac     60
canagaaggc agctacggct actcctacat cctggcgtgg gtggccttcg cctgcacctt    120
```

```
catcagcggc atgatgt                                                      137

        <210> 164
        <211> 469
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(469)
        <223> n = A,T,C or G

        <400> 164
cttatcacaa tgaatgttct cctgggcagc gttgtgatct ttgccacctt cgtgacttta     60
tgcaatgcat catgctattt catacctaat gagggagttc caggagattc aaccaggaaa    120
tgcatggatc tcaaaggaaa caaacaccca ataaactcgg agtggcagac tgacaactgt    180
gagacatgca cttgctacga aacagaaatt tcatgttgca cccttgtttc tacacctgtg    240
ggttatgaca aagacaactg ccaaagaatc ttcaagaagg aggactgcaa gtatatcgtg    300
gtggagaaga aggacccaaa aaagacctgt tctgtcagtg aatggataat ctaatgtgct    360
tctagtaggc acagggctcc caggccaggc ctcattctcc tctggcctct aatagtcaat    420
gattgtgtag ccatgcctat cagtaaaaag atntttgagc aaacacttt                469

        <210> 165
        <211> 195
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(195)
        <223> n = A,T,C or G

        <400> 165
acagtttttt atanatatcg acattgccgg cacttgtgtt cagtttcata aagctggtgg     60
atccgctgtc atccactatt ccttggctag agtaaaaatt attcttatag cccatgtccc    120
tgcaggccgc ccgcccgtag ttctcgttcc agtcgtcttg gcacacaggg tgccaggact    180
tcctctgaga tgagt                                                      195

        <210> 166
        <211> 383
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(383)
        <223> n = A,T,C or G

        <400> 166
acatcttagt agtgtggcac atcagggggc catcagggtc acagtcactc atagcctcgc     60
cgaggtcgga gtccacacca ccggtgtagg tgtgctcaat cttgggcttg gcgcccacct    120
ttggagaagg gatatgctgc acacacatgt ccacaaagcc tgtgaactcg ccaaagaatt    180
tttgcagacc agcctgagca aggggcggat gttcagcttc agctcctcct cgtcaggtg     240
gatgccaacc tcgtctangg tccgtgggaa gctggtgtcc acntcaccta caacctgggc    300
gangatctta taaagaggct ccnagataaa ctccacgaaa cttctctggg agctgctagt    360
nggggccttt ttggtgaact ttc                                             383

        <210> 167
```

58

```
        <211> 247
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(247)
        <223> n = A,T,C or G

        <400> 167
acagagccag accttggcca taaatgaanc agagattaag actaaacccc aagtcganat        60
tggagcagaa actggagcaa gaagtgggcc tggggctgaa gtagagacca aggccactgc       120
tatanccata cacagagcca actctcaggc caaggcnatg gttggggcag anccagagac       180
tcaatctgan tccaaagtgg tggctggaac actggtcatg acanaggcag tgactctgac       240
tgangtc                                                                 247

        <210> 168
        <211> 273
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(273)
        <223> n = A,T,C or G

        <400> 168
acttctaagt tttctagaag tggaaggatt gtantcatcc tgaaaatggg tttacttcaa        60
aatccctcan ccttgttctt cacnactgtc tatactgana gtgtcatgtt tccacaaagg       120
gctgacacct gagcctgnat tttcactcat ccctgagaag ccctttccag tagggtgggc       180
aattcccaac ttccttgcca caagcttccc aggctttctc ccctggaaaa ctccagcttg       240
agtcccagat acactcatgg ctgccctgg gca                                     273

        <210> 169
        <211> 431
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(431)
        <223> n = A,T,C or G

        <400> 169
acagccttgg cttccccaaa ctccacagtc tcagtgcaga aagatcatct tccagcagtc        60
agctcagacc agggtcaaag gatgtgacat caacagtttc tggtttcaga acaggttcta       120
ctactgtcaa atgacccccc atacttcctc aaaggctgtg gtaagttttg cacaggtgag       180
ggcagcagaa aggggggtant tactgatgga caccatcttc tctgtatact ccacactgac       240
cttgccatgg gcaaaggccc ctaccacaaa aacaatagga tcactgctgg gcaccagctc       300
acgcacatca ctgacaaccg ggatggaaaa agaantgcca actttcatac atccaactgg       360
aaagtgatct gatactggat tcttaattac cttcaaaagc ttctgggggc catcagctgc       420
tcgaacactg a                                                           431

        <210> 170
        <211> 266
        <212> DNA
        <213> Homo sapien
```

59

```
        <220>
        <221> misc_feature
        <222> (1)...(266)
        <223> n = A,T,C or G

        <400> 170
acctgtgggc tgggctgtta tgcctgtgcc ggctgctgaa agggagttca gaggtggagc      60
tcaaggagct ctgcaggcat tttgccaanc ctctccanag canagggagc aacctacact     120
ccccgctaga aagacaccag attggagtcc tgggaggggg agttggggtg ggcatttgat     180
gtatacttgt cacctgaatg aangagccag agaggaanga gacgaanatg anattggcct     240
tcaaagctag gggtctggca ggtgga                                         266

        <210> 171
        <211> 1248
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(1248)
        <223> n = A,T,C or G

        <400> 171
ggcagccaaa tcataaacgg cgaggactgc agcccgcact cgcagccctg gcaggcggca      60
ctggtcatgg aaaacgaatt gttctgctcg ggcgtcctgg tgcatccgca gtgggtgctg     120
tcagccgcac actgtttcca gaagtgagtg cagagctcct acaccatcgg gctgggcctg     180
cacagtcttg aggccgacca agagccaggg agccagatgg tggaggccag cctctccgta     240
cggcacccag agtacaacag acccttgctc gctaacgacc tcatgctcat caagttggac     300
gaatccgtgt ccgagtctga caccatccgg agcatcagca ttgcttcgca gtgccctacc     360
gcggggaact cttgcctcgt ttctggctgg ggtctgctgg cgaacggcag aatgcctacc     420
gtgctgcagt gcgtgaacgt gtcggtggtg tctgaggagg tctgcagtaa gctctatgac     480
ccgctgtacc accccagcat gttctgcgcc ggcggagggc aagaccagaa ggactcctgc     540
aacggtgact ctgggggggc cctgatctgc aacgggtact tgcagggcct tgtgtctttc     600
ggaaaagccc cgtgtggcca agttggcgtg ccaggtgtct acaccaacct ctgcaaattc     660
actgagtgga tagagaaaac cgtccaggcc agttaactct ggggactggg aacccatgaa     720
attgaccccc aaatacatcc tgcggaagga attcaggaat atctgttccc agcccctcct     780
ccctcaggcc caggagtcca ggcccccagc ccctcctccc tcaaaccaag ggtacagatc     840
cccagcccct cctccctcag acccaggagt ccagacccccc agcccctcc tccctcagac     900
ccaggagtcc agcccctcct ccctcagacc caggagtcca gaccccccag ccccctcctcc     960
ctcagaccca ggggtccagg cccccaaccc ctcctccctc agactcagag gtccaagccc    1020
ccaaccntc attccccaga cccagaggtc caggtccag ccccctcntcc ctcagaccca    1080
gcggtccaat gccacctaga ctntccctgt acacagtgcc cccttgtggc acgttgaccc    1140
aaccttacca gttggttttt catttttngt ccctttcccc tagatccaga aataaagttt    1200
aagagaagng caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa                 1248

        <210> 172
        <211> 159
        <212> PRT
        <213> Homo sapien

        <220>
        <221> VARIANT
        <222> (1)...(159)
        <223> Xaa = Any Amino Acid

        <400> 172
Met Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro
 1               5                  10                  15
```

```
Leu Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser
            20                  25                  30
Glu Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr
            35                  40                  45
Ala Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly
    50                  55                  60
Arg Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu
65                  70                  75                  80
Glu Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe
                85                  90                  95
Cys Ala Gly Gly Gly Gln Xaa Gln Xaa Asp Ser Cys Asn Gly Asp Ser
            100                 105                 110
Gly Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe
            115                 120                 125
Gly Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn
    130                 135                 140
Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
145                 150                 155
```

```
        <210> 173
        <211> 1265
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(1265)
        <223> n = A,T,C or G

        <400> 173
ggcagcccgc actcgcagcc ctggcaggcg gcactggtca tggaaaacga attgttctgc      60
tcgggcgtcc tggtgcatcc gcagtgggtg ctgtcagccg cacactgttt ccagaactcc     120
tacaccatcg ggctgggcct gcacagtctt gaggccgacc aagagccagg gagccagatg     180
gtggaggcca gcctctccgt acggcaccca gagtacaaca gacccttgct cgctaacgac     240
ctcatgctca tcaagttgga cgaatccgtg tccgagtctg acaccatccg gagcatcagc     300
attgcttcgc agtgccctac cgcggggaac tcttgcctcg tttctggctg gggtctgctg     360
gcgaacggtg agctcacggg tgtgtgtctg ccctcttcaa ggaggtcctc tgcccagtcg     420
cgggggctga cccagagctc tgcgtcccag gcagaatgcc taccgtgctg cagtgcgtga     480
acgtgtcggt ggtgtctgag gaggtctgca gtaagctcta tgacccgctg taccacccca     540
gcatgttctg cgccggcgga gggcaagacc agaaggactc ctgcaacggt gactctgggg     600
ggcccctgat ctgcaacggg tacttgcagg gccttgtgtc tttcggaaaa gccccgtgtg     660
gccaagttgg cgtgccaggt gtctacacca acctctgcaa attcactgag tggatagaga     720
aaaccgtcca ggccagttaa ctctggggac tgggaaccca tgaaattgac ccccaaatac     780
atcctgcgga aggaattcag gaatatctgt cccagccccc tcctccctca ggcccaggag     840
tccaggcccc cagcccctcc tccctcaaac caagggtaca gatccccagc ccctcctccc     900
tcagacccag gagtccagac cccccagccc ctcctccctc agacccagga gtccagcccc     960
tcctccntca gacccaggag tccagacccc ccagcccctc ctcctcaga cccagggggtt    1020
gaggccccca accctcctc cttcagagtc agaggtccaa gcccccaacc cctcgttccc     1080
cagacccaga ggtnnaggtc ccagcccctc ttccntcaga cccagnggtc caatgccacc    1140
tagattttcc ctgnacacag tgcccccttg tggnangttg acccaacctt accagttggt    1200
ttttcatttt tngtcccttt cccctagatc cagaaataaa gtttaagaga ngngcaaaaa    1260
aaaaa                                                                1265
```

```
        <210> 174
        <211> 1459
        <212> DNA
        <213> Homo sapien
```

61

```
        <220>
        <221> misc_feature
        <222> (1)...(1459)
        <223> n = A,T,C or G

        <400> 174
ggtcagccgc acactgtttc cagaagtgag tgcagagctc ctacaccatc gggctgggcc        60
tgcacagtct tgaggccgac caagagccag ggagccagat ggtggaggcc agcctctccg       120
tacggcaccc agagtacaaac agaccccttgc tcgctaacga cctcatgctc atcaagttgg       180
acgaatccgt gtccgagtct gacaccatcc ggagcatcag cattgcttcg cagtgcccta       240
ccgcggggaa ctcttgcctc gtttctggct ggggtctgct ggcgaacggt gagctcacgg       300
gtgtgtgtct gccctcttca aggaggtcct ctgcccagtc gcgggggctg acccagagct       360
ctgcgtccca ggcagaatgc ctaccgtgct gcagtgcgtg aacgtgtcgg tggtgtctga       420
ngaggtctgc antaagctct atgacccgct gtaccacccc ancatgttct gcgccggcgg       480
agggcaagac cagaaggact cctgcaacgt gagagagggg aaaggggagg gcaggcgact       540
cagggaaggg tggagaaggg ggagacagag acacacaggg ccgcatggcg agatgcagag       600
atggagagac acacaggag acagtgacaa ctagagagag aaactgagag aaacagagaa       660
ataaacacag gaataaagag aagcaaagga agagagaaac agaaacagac atggggaggc       720
agaaacacac acacatagaa atgcagttga ccttccaaca gcatggggcc tgagggcggt       780
gacctccacc caatagaaaa tcctcttata acttttgact ccccaaaaac ctgactagaa       840
atagcctact gttgacgggg agccttacca ataacataaa tagtcgattt atgcatacgt       900
tttatgcatt catgatatac ctttgttgga atttttttgat atttctaagc tacacagttc       960
gtctgtgaat tttttttaaat tgttgcaact ctcctaaaat ttttctgatg tgtttattga      1020
aaaaatccaa gtataagtgg acttgtgcat tcaaaccagg gttgttcaag ggtcaactgt      1080
gtacccagag ggaaacagtg acacagattc atagaggtga aacacgaaga gaaacaggaa      1140
aaatcaagac tctacaaaga ggctgggcag ggtggctcat gcctgtaatc ccagcacttt      1200
gggaggcgag gcaggcagat cacttgaggt aaggagttca agaccagcct ggccaaaatg      1260
gtgaaatcct gtctgtacta aaaatacaaa agttagctgg atatggtggc aggcgcctgt      1320
aatcccagct acttgggagg ctgaggcagg agaattgctt gaatatggga ggcagaggtt      1380
gaagtgagtt gagatcacac cactatactc cagctggggc aacagagtaa gactctgtct      1440
caaaaaaaaa aaaaaaaaa                                                     1459

        <210> 175
        <211> 1167
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(1167)
        <223> n = A,T,C or G

        <400> 175
gcgcagccct ggcaggcggc actggtcatg gaaaacgaat tgttctgctc gggcgtcctg        60
gtgcatccgc agtgggtgct gtcagccgca cactgtttcc agaactccta caccatcggg       120
ctgggcctgc acagtcttga ggccgaccaa gagccaggga gccagatggt ggaggccagc       180
ctctccgtac ggcacccaga gtacaacaga ctcttgctcg ctaacgacct catgctcatc       240
aagttggacg aatccgtgtc cgagtctgac accatccgga gcatcagcat gcttcgcag       300
tgccctaccg cggggaactc ttgcctcgtn tctggctggg gtctgctggc gaacggcaga       360
atgcctaccg tgctgcactg cgtgaacgtg tcggtggtgt ctgaggangt ctgcagtaag       420
ctctatgacc cgctgtacca ccccagcatg ttctgcgccg cggagggca agaccagaag       480
gactcctgca acggtgactc tgggggggccc ctgatctgca cgggtactt gcagggcctt       540
gtgtctttcg gaaaagcccc gtgtggccaa cttggcgtgc caggtgtcta caccaacctc       600
tgcaaattca ctgagtggat agagaaaacc gtccagncca gttaactctg gggactggga       660
acccatgaaa ttgacccca aatacatcct gcggaangaa ttcaggaata tctgttccca       720
gcccctcctc cctcaggcc aggagtccag gcccccagcc cctcctccct caaaccaagg       780
gtacagatcc ccagcccctc ctccctcaga cccaggagtc cagacccccc agccctcnt       840
ccntcagacc caggagtcca gcccctcctc cntcagacgc aggagtccag acccccagc       900
```

62

```
ccntcntccg tcagacccag gggtgcaggc ccccaacccc tcntcctca gagtcagagg      960
tccaagcccc caaccctcg ttccccagac ccagaggtnc aggtcccagc ccctcctccc     1020
tcagacccag cggtccaatg ccacctagan tntccctgta cacagtgccc ccttgtggca    1080
ngttgaccca accttaccag ttggtttttc attttttgtc cctttcccct agatccagaa    1140
ataaagtnta agagaagcgc aaaaaaa                                        1167
```

```
        <210> 176
        <211> 205
        <212> PRT
        <213> Homo sapien

        <220>
        <221> VARIANT
        <222> (1)...(205)
        <223> Xaa = Any Amino Acid

        <400> 176
Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln Trp
1               5                   10                  15
Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu
            20                  25                  30
Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met Val
        35                  40                  45
Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Leu Leu Leu
    50                  55                  60
Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu Ser
65                  70                  75                  80
Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala Gly
            85                  90                  95
Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg Met
            100                 105                 110
Pro Thr Val Leu His Cys Val Asn Val Ser Val Val Ser Glu Xaa Val
            115                 120                 125
Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys Ala
    130                 135                 140
Gly Gly Gly Gln Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly Gly
145                 150                 155                 160
Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly Lys
            165                 170                 175
Ala Pro Cys Gly Gln Leu Gly Val Pro Gly Val Tyr Thr Asn Leu Cys
            180                 185                 190
Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Xaa Ser
    195                 200                 205
```

```
        <210> 177
        <211> 1119
        <212> DNA
        <213> Homo sapien

        <400> 177
gcgcactcgc agccctggca ggcggcactg gtcatggaaa acgaattgtt ctgctcgggc       60
gtcctggtgc atccgcagtg ggtgctgtca gccgcacact gtttccagaa ctccctacacc     120
atcgggctgg gcctgcacag tcttgaggcc gaccaagagc cagggagcca gatggtggag      180
gccagcctct ccgtacggca cccagagtac aacagaccct gctcgctaa cgacctcatg       240
ctcatcaagt tggacgaatc cgtgtccgag tctgacacca tccggagcat cagcattgct       300
tcgcagtgcc ctaccgcggg gaactcttgc ctcgtttctg gctggggtct gctggcgaac      360
gatgctgtga ttgccatcca gtcccagact gtgggaggct gggagtgtga gaagctttcc      420
caaccctggc agggttgtac catttcggca acttccagtg caaggacgtc ctgctgcatc      480
```

63

```
ctcactgggt gctcactact gctcactgca tcacccggaa cactgtgatc aactagccag        540
caccatagtt ctccgaagtc agactatcat gattactgtg ttgactgtgc tgtctattgt        600
actaaccatg ccgatgttta ggtgaaatta gcgtcacttg cctcaacca tcttggtatc        660
cagttatcct cactgaattg agatttcctg cttcagtgtc agccattccc acataatttc        720
tgacctacag aggtgaggga tcatatagct cttcaaggat gctggtactc ccctcacaaa        780
ttcatttctc ctgttgtagt gaaaggtgcg ccctctggag cctcccaggg tgggtgtgca        840
ggtcacaatg atgaatgtat gatcgtgttc ccattaccca aagcctttaa atccctcatg        900
ctcagtacac cagggcaggt ctagcatttc ttcatttagt gtatgctgtc cattcatgca        960
accacctcag gactcctgga ttctctgcct agttgagctc ctgcatgctg cctccttggg       1020
gaggtgaggg agagggccca tggttcaatg ggatctgtgc agttgtaaca cattaggtgc       1080
ttaataaaca gaagctgtga tgttaaaaaa aaaaaaaaa                              1119
```

```
        <210> 178
        <211> 164
        <212> PRT
        <213> Homo sapien

        <220>
        <221> VARIANT
        <222> (1)...(164)
        <223> Xaa = Any Amino Acid

        <400> 178
Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln Trp
1               5                   10                  15
Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu
            20                  25                  30
Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met Val
        35                  40                  45
Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu Leu
    50                  55                  60
Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu Ser
65                  70                  75                  80
Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala Gly
                85                  90                  95
Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Asp Ala Val
            100                 105                 110
Ile Ala Ile Gln Ser Xaa Thr Val Gly Gly Trp Glu Cys Glu Lys Leu
        115                 120                 125
Ser Gln Pro Trp Gln Gly Cys Thr Ile Ser Ala Thr Ser Ser Ala Arg
    130                 135                 140
Thr Ser Cys Cys Ile Leu Thr Gly Cys Ser Leu Leu Leu Thr Ala Ser
145                 150                 155                 160
Pro Gly Thr Leu
```

```
        <210> 179
        <211> 250
        <212> DNA
        <213> Homo sapien

        <400> 179
ctggagtgcc ttggtgtttc aagcccctgc aggaagcaga atgcaccttc tgaggcacct         60
ccagctgccc ccggccgggg gatgcgaggc tcggagcacc cttgcccggc tgtgattgct        120
gccaggcact gttcatctca gcttttctgt ccctttgctc ccggcaagcg cttctgctga        180
aagttcatat ctggagcctg atgtcttaac gaataaaggt cccatgctcc acccgaaaaa        240
aaaaaaaaaa                                                              250
```

64

```
<210> 180
<211> 202
<212> DNA
<213> Homo sapien

<400> 180
actagtccag tgtggtggaa ttccattgtg ttgggcccaa cacaatggct acctttaaca      60
tcacccagac cccgcccctg cccgtgcccc acgctgctgc taacgacagt atgatgctta     120
ctctgctact cggaaactat ttttatgtaa ttaatgtatg ctttcttgtt tataaatgcc     180
tgatttaaaa aaaaaaaaaa aa                                              202


<210> 181
<211> 558
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(558)
<223> n = A,T,C or G

<400> 181
tccytttgkt naggtttkkg agacamccck agacctwaan ctgtgtcaca gacttcyngg      60
aatgtttagg cagtgctagt aatttcytcg taatgattct gttattactt tcctnattct     120
ttattcctct ttcttctgaa gattaatgaa gttgaaaatt gaggtggata aatacaaaaa     180
ggtagtgtga tagtataagt atctaagtgc agatgaaagt gtgttatata tatccattca     240
aaattatgca agttagtaat tactcagggt taactaaatt actttaatat gctgttgaac     300
ctactctgtt ccttggctag aaaaaattat aaacaggact ttgttagttt gggaagccaa     360
attgataata ttctatgttc taaaagttgg gctatacata aattattaag aaatatggaw     420
ttttattccc aggaatatgg kgttcatttt atgaatatta cscrggatag awgtwtgagt     480
aaaaycagtt ttggtwaata ygtwaatatg tcmtaaataa acaakgcttt gacttatttc     540
caaaaaaaaa aaaaaaaa                                                   558


<210> 182
<211> 479
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(479)
<223> n = A,T,C or G

<400> 182
acagggwttk grggatgcta agsccccrga rwtygtttga tccaaccctg gcttwttttc      60
agaggggaaa atggggccta gaagttacag mscatytagy tggtgcgmtg gcacccctgg     120
cstcacacag astcccgagt agctgggact acaggcacac agtcactgaa gcaggccctg     180
ttwgcaattc acgttgccac ctccaactta aacattcttc atatgtgatg tccttagtca     240
ctaaggttaa actttcccac ccagaaaagg caacttagat aaaatcttag agtactttca     300
tactmttcta agtcctcttc cagcctcact kkgagtcctm cytggggggtt gataggaant     360
ntctcttggc tttctcaata aartctctat ycatctcatg tttaatttgg tacgcatara     420
awtgstgara aaattaaaat gttctggtty mactttaaaa araaaaaaaa aaaaaaaaa      479


<210> 183
<211> 384
<212> DNA
<213> Homo sapien
```

65

```
        <400> 183
aggcgggagc agaagctaaa gccaaagccc aagaagagtg gcagtgccag cactggtgcc    60
agtaccagta ccaataacag tgccagtgcc agtgccagca ccagtggtgg cttcagtgct   120
ggtgccagcc tgaccgccac tctcacattt gggctcttcg ctggccttgg tggagctggt   180
gccagcacca gtggcagctc tggtgcctgt ggtttctcct acaagtgaga tttttagatat   240
tgttaatcct gccagtcttt ctcttcaagc cagggtgcat cctcagaaac ctactcaaca   300
cagcactcta ggcagccact atcaatcaat tgaagttgac actctgcatt aratctattt   360
gccatttcaa aaaaaaaaaa aaaa                                          384

        <210> 184
        <211> 496
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(496)
        <223> n = A,T,C or G

        <400> 184
accgaattgg gaccgctggc ttataagcga tcatgtyynt ccrgtatkac ctcaacgagc    60
agggagatcg agtctatacg ctgaagaaat ttgacccgat gggacaacag acctgctcag   120
cccatcctgc tcggttctcc ccagatgaca aatactctsg acaccgaatc accatcaaga   180
aacgcttcaa ggtgctcatg acccagcaac cgcgccctgt cctctgaggg tcccttaaac   240
tgatgtcttt tctgccacct gttaccccctc ggagactccg taaccaaact cttcggactg   300
tgagccctga tgccttttttg ccagccatac tctttggcat ccagtctctc gtggcgattg   360
attatgcttg tgtgaggcaa tcatggtggc atcacccata aagggaacac atttgacttt   420
tttttctcat attttaaatt actacmagaw tattwmagaw waaatgawtt gaaaaactst   480
taaaaaaaaa aaaaaa                                                  496

        <210> 185
        <211> 384
        <212> DNA
        <213> Homo sapien

        <400> 185
gctggtagcc tatggcgkgg cccacggagg ggctcctgag gccacggrac agtgacttcc    60
caagtatcyt gcgcsgcgtc ttctaccgtc cctacctgca gatcttcggg cagattcccc   120
aggaggacat ggacgtggcc ctcatggagc acagcaactg ytcgtcggag cccggcttct   180
gggcacaccc tcctggggcc caggcgggca cctgcgtctc ccagtatgcc aactggctgg   240
tggtgctgct cctcgtcatc ttcctgctcg tggccaacat cctgctggtc aacttgctca   300
ttgccatgtt cagttacaca ttcggcaaag tacagggcaa cagcgatctc tactgggaag   360
gcgcagcgtt accgcctcat ccgg                                         384

        <210> 186
        <211> 577
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(577)
        <223> n = A,T,C or G

        <400> 186
gagttagctc ctccacaacc ttgatgaggt cgtctgcagt ggcctctcgc ttcataccgc    60
tnccatcgtc atactgtagg tttgccacca cytcctggca tcttggggcg gcntaatatt   120
ccaggaaact ctcaatcaag tcaccgtcga tgaaacctgt gggctggttc tgtcttccgc   180
```

66

```
tcggtgtgaa aggatctccc agaaggagtg ctcgatcttc cccacacttt tgatgacttt    240
attgagtcga ttctgcatgt ccagcaggag gttgtaccag ctctctgaca gtgaggtcac    300
cagccctatc atgccgttga mcgtgccgaa garcaccgag ccttgtgtgg gggkkgaagt    360
ctcacccaga ttctgcatta ccagagagcc gtggcaaaag acattgacaa actcgcccag    420
gtggaaaaag amcamctcct ggargtgctn gccgctcctc gtcmgttggt ggcagcgctw    480
tccttttgac acacaaacaa gttaaaggca ttttcagccc ccagaaantt gtcatcatcc    540
aagatntcgc acagcactna tccagttggg attaaat                            577
```

        <210> 187
        <211> 534
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(534)
        <223> n = A,T,C or G

        <400> 187
```
aacatcttcc tgtataatgc tgtgtaatat cgatccgatn ttgtctgstg agaatycatw     60
actkggaaaa gmaacattaa agcctggaca ctggtattaa aattcacaat atgcaacact    120
ttaaacagtg tgtcaatctg ctcccyynac tttgtcatca ccagtctggg aakaagggta    180
tgccctattc acacctgtta aaagggcgct aagcattttt gattcaacat cttttttttt    240
gacacaagtc cgaaaaaagc aaaagtaaac agttatyaat ttgttagcca attcacttc     300
ttcatgggac agagccatyt gatttaaaaa gcaaattgca taatattgag cttygggagc    360
tgatatttga gcggaagagt agcctttcta cttcaccaga cacaactccc tttcatattg    420
ggatgttnac naaagtwatg tctctwacag atgggatgct tttgtggcaa ttctgttctg    480
aggatctccc agtttattta ccacttgcac aagaaggcgt tttcttcctc aggc          534
```

        <210> 188
        <211> 761
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(761)
        <223> n = A,T,C or G

        <400> 188
```
agaaaccagt atctctnaaa acaacctctc ataccttgtg gacctaattt tgtgtgcgtg     60
tgtgtgtgcg cgcatattat atagacaggc acatcttttt tacttttgta aaagcttatg    120
cctctttggt atctatatct gtgaaagttt taatgatctg ccataatgtc ttggggacct    180
ttgtcttctg tgtaaatggt actagagaaa acacctatnt tatgagtcaa tctagttngt    240
tttattcgac atgaaggaaa tttccagatn acaacactna caaactctcc ctkgackarg    300
ggggacaaag aaaagcaaaa ctgamcataa raaacaatwa cctggtgaga arttgcataa    360
acagaaatwr ggtagtatat tgaarnacag catcattaaa rmgttwtktt wttctccctt    420
gcaaaaaaca tgtacngact tcccgttgag taatgccaag ttgttttttt tatnataaaa    480
cttgcccttc attacatgtt tnaaagtggt gtggtgggcc aaaatattga aatgatggaa    540
ctgactgata aagctgtaca aataagcagt gtgcctaaca agcaacacag taatgttgac    600
atgcttaatt cacaaatgct aatttcatta taaatgtttg ctaaaataca ctttgaacta    660
tttttctgtn ttcccagagc tgagatntta gattttatgt agtataagt gaaaaantac     720
gaaaataata acattgaaga aaaananaaa aaanaaaaaa a                        761
```

        <210> 189
        <211> 482
        <212> DNA
        <213> Homo sapien

67

```
        <220>
        <221> misc_feature
        <222> (1)...(482)
        <223> n = A,T,C or G

        <400> 189
tttttttttt tttgccgatn ctactatttt attgcaggan gtgggggtgt atgcaccgca         60
caccggggct atnagaagca agaaggaagg agggagggca cagccccttg ctgagcaaca        120
aagccgcctg ctgccttctc tgtctgtctc ctggtgcagg cacatgggga gaccttcccc        180
aaggcagggg ccaccagtcc aggggtggga atacaggggg tgggangtgt gcataagaag        240
tgataggcac aggccacccg gtacagaccc ctcggctcct gacaggtnga tttcgaccag        300
gtcattgtgc cctgcccagg cacagcgtan atctggaaaa gacagaatgc tttccttttc        360
aaatttggct ngtcatngaa ngggcanttt tccaanttng gctnggtctt ggtacncttg        420
gttcggccca gctccncgtc caaaaantat tcacccnnct ccnaattgct tgcnggnccc        480
cc                                                                       482

        <210> 190
        <211> 471
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(471)
        <223> n = A,T,C or G

        <400> 190
tttttttttt tttťaaaaca gtttttcaca acaaaattta ttagaagaat agtggttttg         60
aaaactctcg catccagtga gaactaccat acaccacatt acagctngga atgtnctcca        120
aatgtctggt caaatgatac aatggaacca ttcaatctta cacatgcacg aaagaacaag        180
cgcttttgac atacaatgca caaaaaaaaa aggggggggg gaccacatgg attaaaattt        240
taagtactca tcacatacat taagacacag ttctagtcca gtcnaaaatc agaactgcnt        300
tgaaaaattt catgtatgca atccaaccaa agaacttnat tggtgatcat gantnctcta        360
ctacatcnac cttgatcatt gccaggaacn aaaagttnaa ancacncngt acaaaaanaa        420
tctgtaattn anttcaacct ccgtacngaa aaatnttnnt tatacactcc c                471

        <210> 191
        <211> 402
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(402)
        <223> n = A,T,C or G

        <400> 191
gagggattga aggtctgttc tastgtcggm ctgttcagcc accaactcta acaagttgct         60
gtcttccact cactgtctgt aagctttta acccagacwg tatcttcata aatagaacaa        120
attcttcacc agtcacatct tctaggacct ttttggattc agttagtata agctcttcca        180
cttcctttgt taagacttca tctggtaaag tcttaagttt tgtagaaagg aattyaattg        240
ctcgttctct aacaatgtcc tctccttgaa gtatttggct gaacaaccca cctaaagtcc        300
ctttgtgcat ccattttaaa tatacttaat agggcattgk tncactaggt taaattctgc        360
aagagtcatc tgtctgcaaa agttgcgtta gtatatctgc ca                          402

        <210> 192
        <211> 601
```

68

```
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(601)
        <223> n = A,T,C or G

        <400> 192
gagctcggat ccaataatct ttgtctgagg gcagcacaca tatncagtgc catggnaact         60
ggtctacccc acatgggagc agcatgccgt agntatataa ggtcattccc tgagtcagac        120
atgcytyttt gaytaccgtg tgccaagtgc tggtgattct yaacacacyt ccatcccgyt        180
cttttgtgga aaaactggca cttktctgga actagcarga catcacttac aaattcaccc        240
acgagacact tgaaaggtgt aacaaagcga ytcttgcatt gcttttgtc cctccggcac         300
cagttgtcaa tactaacccg ctggtttgcc tccatcacat ttgtgatctg tagctctgga        360
tacatctcct gacagtactg aagaacttct tcttttgttt caaaagcarc tcttggtgcc        420
tgttggatca ggttcccatt tcccagtcyg aatgttcaca tggcatattt wacttcccac        480
aaaacattgc gatttgaggc tcagcaacag caaatcctgt tccggcattg gctgcaagag        540
cctcgatgta gccggccagc gccaaggcag gcgccgtgag ccccaccagc agcagaagca        600
g                                                                        601

        <210> 193
        <211> 608
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(608)
        <223> n = A,T,C or G

        <400> 193
atacagccca natcccacca cgaagatgcg cttgttgact gagaacctga tgcggtcact         60
ggtcccgctg tagcccccagc gactctccac ctgctggaag cggttgatgc tgcactcytt       120
cccaacgcag gcagmagcgg gsccggtcaa tgaactccay tcgtggcttg gggtkgacgg        180
tkaagtgcag gaagaggctg accacctcgc tggtccaccag gatgcccgac tgtgcgggac       240
ctgcagcgaa actcctcgat ggtcatgagc gggaagcgaa tgaggcccag ggccttgccc        300
agaaccttcc gcctgttctc tggcgtcacc tgcagctgct gccgctgaca ctcggcctcg        360
gaccagcgga caaacggcrt tgaacagccg cacctcacgg atgcccagtg tgtcgcgctc        420
caggammgsc accagcgtgt ccaggtcaat gtcggtgaag ccctccgcgg gtratggcgt        480
ctgcagtgtt tttgtcgatg ttctccaggc acaggctggc cagctgcggt tcatcgaaga        540
gtcgcgcctg cgtgagcagc atgaaggcgt tgtcggctcg cagttcttct tcaggaactc        600
cacgcaat                                                                 608

        <210> 194
        <211> 392
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(392)
        <223> n = A,T,C or G

        <400> 194
gaacggctgg accttgcctc gcattgtgct tgctggcagg gaataccttg gcaagcagyt         60
ccagtccgag cagcccccaga ccgctgccgc ccgaagctaa gcctgcctct ggccttcccc       120
tccgcctcaa tgcagaacca gtagtgggag cactgtgttt agagttaaga gtgaacactg        180
```

69

```
tttgatttta cttgggaatt tcctctgtta tatagctttt cccaatgcta atttccaaac      240
aacaacaaca aaataacatg tttgcctgtt aagttgtata aaagtaggtg attctgtatt      300
taaagaaaat attactgtta catatactgc ttgcaatttc tgtatttatt gktnctstgg      360
aaataaatat agttattaaa ggttgtcant cc                                    392
```

        <210> 195
        <211> 502
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(502)
        <223> n = A,T,C or G

        <400> 195
```
ccsttkgagg ggtkaggkyc cagttyccga gtggaagaaa caggccagga gaagtgcgtg       60
ccgagctgag gcagatgttc ccacagtgac ccccagagcc stgggstata gtytctgacc      120
cctcncaagg aaagaccacs ttctggggac atgggctgga gggcaggacc tagaggcacc      180
aagggaaggc cccattccgg ggstgttccc cgaggaggaa gggaaggggc tctgtgtgcc      240
ccccasgagg aagaggccct gagtcctggg atcagacacc ccttcacgtg tatccccaca      300
caaatgcaag ctcaccaagg tcccctctca gtccccttcc stacaccctg amcggccact      360
gscscacacc cacccagagc acgccacccg ccatggggar tgtgctcaag gartcgcngg      420
gcarcgtgga catctngtcc cagaaggggg cagaatctcc aatagangga ctgarcmstt      480
gctnanaaaa aaaaanaaaa aa                                               502
```

        <210> 196
        <211> 665
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(665)
        <223> n = A,T,C or G

        <400> 196
```
ggttacttgg tttcattgcc accacttagt ggatgtcatt tagaaccatt ttgtctgctc       60
cctctggaag ccttgcgcag agcggacttt gtaattgttg gagaataact gctgaatttt      120
wagctgtttk gagttgatts gcaccactgc acccacaact tcaatatgaa aacyawttga      180
actwatttat tatcttgtga aaagtataac aatgaaaatt ttgttcatac tgtattkatc      240
aagtatgatg aaaagcaawa gatatatatt cttttattat gttaaattat gattgccatt      300
attaatcggc aaaatgtgga gtgtatgttc ttttcacagt aatatatgcc ttttgtaact      360
tcacttggtt attttattgt aaatgartta caaaattctt aatttaagar aatggtatgt      420
watatttatt tcattaattt ctttcctkgt ttacgtwaat tttgaaaaga wtgcatgatt      480
tcttgacaga aatcgatctt gatgctgtgg aagtagtttg acccacatcc ctatgagttt      540
ttcttagaat gtataaaggt tgtagcccat cnaacttcaa agaaaaaaat gaccacatac      600
tttgcaatca ggctgaaatg tggcatgctn ttctaattcc aactttataa actagcaaan      660
aagtg                                                                 665
```

        <210> 197
        <211> 492
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(492)

70

```
<223> n = A,T,C or G

<400> 197
ttttnttttt ttttttttgc aggaaggatt ccatttattg tggatgcatt ttcacaatat          60
atgtttattg gagcgatcca ttatcagtga aaagtatcaa gtgtttataa nattttttagg        120
aaggcagatt cacagaacat gctngtcngc ttgcagtttt acctcgtana gatnacagag        180
aattatagtc naaccagtaa acnaggaatt tacttttcaa aagattaaat ccaaactgaa        240
caaaattcta ccctgaaact tactccatcc aaatattgga ataanagtca gcagtgatac        300
attctcttct gaactttaga ttttctagaa aaatatgtaa tagtgatcag gaagagctct        360
tgttcaaaag tacaacnaag caatgttccc ttaccatagg ccttaattca aactttgatc        420
catttcactc ccatcacggg agtcaatgct acctgggaca cttgtatttt gttcatnctg        480
ancntggctt aa                                                             492

        <210> 198
        <211> 478
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(478)
        <223> n = A,T,C or G

        <400> 198
tttntttttgn atttcantct gtannaanta ttttcattat gtttattana aaaatatnaa          60
tgtntccacn acaaatcatn ttacntnagt aagaggccan ctacattgta caacatacac        120
tgagtatatt ttgaaaagga caagtttaaa gtanacncat attgccganc atancacatt        180
tatacatggc ttgattgata tttagcacag canaaactga gtgagttacc agaaanaaat        240
natatatgtc aatcngattt aagatacaaa acagatccta tggtacatan catcntgtag        300
gagttgtggc tttatgttta ctgaaagtca atgcagttcc tgtacaaaga gatggccgta        360
agcattctag tacctctact ccatggttaa gaatcgtaca cttatgttta catatgtnca        420
gggtaagaat tgtgttaagt naanttatgg agaggtccan gagaaaaatt tgatncaa         478

        <210> 199
        <211> 482
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(482)
        <223> n = A,T,C or G

        <400> 199
agtgacttgt cctccaacaa aaccccttga tcaagtttgt ggcactgaca atcagaccta          60
tgctagttcc tgtcatctat tcgctactaa atgcagactg gaggggacca aaaaggggca        120
tcaactccag ctggattatt ttggagcctg caaatctatt cctacttgta cggactttga        180
agtgattcag tttcctctac ggatgagaga ctggctcaag aatatcctca tgcagcttta        240
tgaagccnac tctgaacacg ctggttatct nagatgagaa ncagagaaat aaagtcnaga        300
aaatttacct ggangaaaag aggctttngg ctggggacca tcccattgaa ccttctctta        360
anggactta agaanaaact accacatgtn tgtngtatcc tggtgccngg ccgtttantg        420
aacntngacn ncacccttnt ggaatanant cttgacngcn tcctgaactt gctcctctgc        480
ga                                                                        482

        <210> 200
        <211> 270
        <212> DNA
        <213> Homo sapien
```

71

```
<220>
<221> misc_feature
<222> (1)...(270)
<223> n = A,T,C or G

<400> 200
cggccgcaag tgcaactcca gctggggccg tgcggacgaa gattctgcca gcagttggtc      60
cgactgcgac gacggcggcg gcgacagtcg caggtgcagc gcgggcgcct ggggtcttgc     120
aaggctgagc tgacgccgca gaggtcgtgt cacgtcccac gaccttgacg ccgtcgggga     180
cagccggaac agagcccggt gaangcggga ggcctcgggg agcccctcgg gaagggcggc     240
ccgagagata cgcaggtgca ggtggccgcc                                      270


<210> 201
<211> 419
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 201
tttttttttt ttttggaatc tactgcgagc acagcaggtc agcaacaagt ttattttgca      60
gctagcaagg taacagggta gggcatggtt acatgttcag gtcaacttcc tttgtcgtgg     120
ttgattggtt tgtctttatg ggggcggggt ggggtagggg aaancgaagc anaantaaca     180
tggagtgggt gcaccctccc tgtagaacct ggttacnaaa gcttgggca gttcacctgg      240
tctgtgaccg tcattttctt gacatcaatg ttattagaag tcaggatatc ttttagagag     300
tccactgtnt ctggagggag attagggttt cttgccaana tccaancaaa atccacntga     360
aaaagttgga tgatncangt acngaatacc ganggcatan ttctcatant cggtggcca      419


<210> 202
<211> 509
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(509)
<223> n = A,T,C or G

<400> 202
tttntttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt      60
tggcacttaa tccattttta tttcaaaatg tctacaaant ttnaatncnc cattatacng     120
gtnattttnc aaaatctaaa nnttattcaa atntnagcca aantccttac ncaaatnnaa     180
tacncncaaa aatcaaaaat atacntntct ttcagcaaac ttngttacat aaaattaaaaa     240
aatatatacg gctggtgttt tcaaagtaca attatcttaa cactgcaaac atntttnnaa     300
ggaactaaaa taaaaaaaaa cactnccgca aaggttaaag ggaacaacaa attcntttta     360
caacancnnc nattataaaa atcatatctc aaatcttagg ggaatatata cttcacacng     420
ggatcttaac ttttactnca ctttgtttat tttttttanaa ccattgtntt gggcccaaca     480
caatggnaat nccnccncnc tggactagt                                       509
```

```
<210> 203
<211> 583
<212> DNA
<213> Homo sapien
```

72

```
<220>
<221> misc_feature
<222> (1)...(583)
<223> n = A,T,C or G

<400> 203
tttttttttt ttttttttga ccccccctctt ataaaaaaca agttaccatt ttattttact      60
tacacatatt tattttataa ttggtattag atattcaaaa ggcagctttt aaaatcaaac      120
taaatggaaa ctgccttaga tacataattc ttaggaatta gcttaaaatc tgcctaaagt      180
gaaaatcttc tctagctctt ttgactgtaa attttttgact cttgtaaaac atccaaattc      240
attttttcttg tctttaaaat tatctaatct ttccattttt tccctattcc aagtcaattt      300
gcttctctag cctcatttcc tagctcttat ctactattag taagtggctt ttttcctaaa      360
agggaaaaca ggaagagana atggcacaca aaacaaacat tttatattca tatttctacc      420
tacgttaata aaatagcatt ttgtgaagcc agctcaaaag aaggcttaga tccttttatg      480
tccattttag tcactaaacg atatcnaaag tgccagaatg caaaaggttt gtgaacattt      540
attcaaaagc taatataaga tatttcacat actcatcttt ctg      583
```

```
<210> 204
<211> 589
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(589)
<223> n = A,T,C or G

<400> 204
tttttttttnt tttttttttt tttttttnctc ttctttttttt ttganaatga ggatcgagtt      60
tttcactctc tagatagggc atgaagaaaa ctcatctttc cagctttaaa ataacaatca      120
aatctcttat gctatatcat attttaagtt aaactaatga gtcactggct tatcttctcc      180
tgaaggaaat ctgttcattc ttctcattca tatagttata tcaagtacta ccttgcatat      240
tgagaggttt ttcttctcta tttacacata tatttccatg tgaatttgta tcaaaccttt      300
attttcatgc aaactagaaa ataatgtntt cttttgcata agagaagaga acaatatnag      360
cattacaaaa ctgctcaaat tgtttgttaa gnttatccat tataattagt tnggcaggag      420
ctaatacaaa tcacatttac ngacnagcaa taataaaact gaagtaccag ttaaatatcc      480
aaaataatta aaggaacatt tttagcctgg gtataattag ctaattcact ttacaagcat      540
ttattnagaa tgaattcaca tgttattatt ccntagccca acacaatgg      589
```

```
<210> 205
<211> 545
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(545)
<223> n = A,T,C or G

<400> 205
tttttntttt tttttttcagt aataatcaga acaatattta tttttatatt taaaattcat      60
agaaaagtgc cttacattta ataaaagttt gtttctcaaa gtgatcagag gaattagata      120
tngtcttgaa caccaatatt aatttgagga aaatacacca aaatacatta agtaaattat      180
ttaagatcat agagcttgta agtgaaaaga taaaatttga cctcagaaac tctgagcatt      240
aaaaatccac tattagcaaa taaattacta tggacttctt gctttaattt tgtgatgaat      300
atggggtgtc actggtaaac caacacattc tgaaggatac attacttagt gatagattct      360
tatgtacttt gctanatnac gtggatatga gttgacaagt ttctctttct tcaatctttt      420
aagggggcnga ngaaatgagg aagaaaagaa aaggattacg catactgttc tttctatngg      480
```

73

```
aaggattaga tatgtttcct ttgccaatat taaaaaaata ataatgttta ctactagtga       540
aaccc                                                                  545

        <210> 206
        <211> 487
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(487)
        <223> n = A,T,C or G

        <400> 206
ttttttttt tttttagtc aagtttctna tttttattat aattaaagtc ttggtcattt          60
catttattag ctctgcaact tacatattta aattaaagaa acgttnttag acaactgtna        120
caatttataa atgtaaggtg ccattattga gtanatatat tcctccaaga gtggatgtgt       180
cccttctccc accaactaat gaancagcaa cattagttta attttattag tagatnatac       240
actgctgcaa acgctaattc tcttctccat ccccatgtng atattgtgta tatgtgtgag       300
ttggtnagaa tgcatcanca atctnacaat caacagcaag atgaagctag gcntgggctt       360
tcggtgaaaa tagactgtgt ctgtctgaat caaatgatct gacctatcct cggtggcaag       420
aactcttcga accgcttcct caaaggcngc tgccacattt gtggcntctn ttgcacttgt       480
ttcaaaa                                                                 487

        <210> 207
        <211> 332
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(332)
        <223> n = A,T,C or G

        <400> 207
tgaattggct aaaagactgc attttttanaa ctagcaactc ttatttcttt cctttaaaaa      60
tacatagcat taaatcccaa atcctattta aagacctgac agcttgagaa ggtcactact       120
gcatttatag gaccttctgg tggttctgct gttacntttg aantctgaca atccttgana       180
atctttgcat gcagaggagg taaaaggtat tggattttca cagaggaana acacagcgca       240
gaaatgaagg ggccaggctt actgagcttg tccactggag ggctcatggg tgggacatgg       300
aaaagaaggc agcctaggcc ctggggagcc ca                                     332

        <210> 208
        <211> 524
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(524)
        <223> n = A,T,C or G

        <400> 208
agggcgtggt gcggagggcg ttactgtttt gtctcagtaa caataaatac aaaaagactg        60
gttgtgttcc ggccccatcc aaccacgaag ttgatttctc ttgtgtgcag agtgactgat       120
tttaaaggac atggagcttg tcacaatgtc acaatgtcac agtgtgaagg gcacactcac       180
tcccgcgtga ttcacattta gcaaccaaca atagctcatg agtccatact tgtaaatact       240
tttggcagaa tacttnttga aacttgcaga tgataactaa gatccaagat atttcccaaa       300
```

74

```
gtaaatagaa gtgggtcata atattaatta cctgttcaca tcagcttcca tttacaagtc      360
atgagcccag acactgacat caaactaagc ccacttagac tcctcaccac cagtctgtcc      420
tgtcatcaga caggaggctg tcaccttgac caaattctca ccagtcaatc atctatccaa      480
aaaccattac ctgatccact tccggtaatg caccaccttg gtga                      524
```

```
        <210> 209
        <211> 159
        <212> DNA
        <213> Homo sapien


        <400> 209
gggtgaggaa atccagagtt gccatggaga aaattccagt gtcagcattc ttgctccttg       60
tggccctctc ctacactctg gccagagata ccacagtcaa acctggagcc aaaaaggaca      120
caaaggactc tcgacccaaa ctgccccaga ccctctcca                            159


        <210> 210
        <211> 256
        <212> DNA
        <213> Homo sapien


        <220>
        <221> misc_feature
        <222> (1)...(256)
        <223> n = A,T,C or G


        <400> 210
actccctggc agacaaaggc agaggagaga gctctgttag ttctgtgttg ttgaactgcc       60
actgaatttc tttccacttg gactattaca tgccanttga gggactaatg gaaaaacgta      120
tggggagatt ttanccaatt tangtntgta aatggggaga ctggggcagg cgggagagat      180
ttgcagggtg naaatgggan ggctggtttg ttanatgaac agggacatag gaggtaggca      240
ccaggatgct aaatca                                                    256


        <210> 211
        <211> 264
        <212> DNA
        <213> Homo sapien


        <220>
        <221> misc_feature
        <222> (1)...(264)
        <223> n = A,T,C or G


        <400> 211
acattgtttt tttgagataa agcattgaga gagctctcct taacgtgaca caatggaagg       60
actggaacac atacccacat ctttgttctg agggataatt ttctgataaa gtcttgctgt      120
atattcaagc acatatgtta tatattattc agttccatgt ttatagccta gttaaggaga      180
ggggagatac attcngaaag aggactgaaa gaaatactca agtnggaaaa cagaaaaaga      240
aaaaaggag caaatgagaa gcct                                             264


        <210> 212
        <211> 328
        <212> DNA
        <213> Homo sapien


        <220>
        <221> misc_feature
        <222> (1)...(328)
        <223> n = A,T,C or G
```

75

```
        <400> 212
acccaaaaat ccaatgctga atatttggct tcattattcc canattcttt gattgtcaaa        60
ggatttaatg ttgtctcagc ttgggcagtt cagttaggac ctaaggatgc cagccggcag       120
gtttatatat gcagcaacaa tattcaagcg cgacaacagg ttattgaact tgcccgccag       180
ttnaatttca ttcccattga cttgggatcc ttatcatcag ccagagagat tgaaaattta       240
cccctacnac tctttactct ctgganaggg ccagtggtgg tagctataag cttggccaca       300
ttttttttc ctttattcct ttgtcaga                                           328
```

        <210> 213
        <211> 250
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(250)
        <223> n = A,T,C or G

```
        <400> 213
acttatgagc agagcgacat atccnagtgt agactgaata aaactgaatt ctctccagtt        60
taaagcattg ctcactgaag ggatagaagt gactgccagg agggaaagta agccaaggct       120
cattatgcca aagganatat acatttcaat tctccaaact tcttcctcat tccaagagtt       180
ttcaatattt gcatgaacct gctgataanc catgttaana aacaaatatc tctctnacct       240
tctcatcggt                                                             250
```

        <210> 214
        <211> 444
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(444)
        <223> n = A,T,C or G

```
        <400> 214
acccagaatc caatgctgaa tatttggctt cattattccc agattctttg attgtcaaag        60
gatttaatgt tgtctcagct tgggcacttc agttaggacc taaggatgcc agccggcagg       120
tttatatatg cagcaacaat attcaagcgc gacaacaggt tattgaactt gcccgccagt       180
tgaatttcat tcccattgac ttgggatcct tatcatcagc canagagatt gaaaatttac       240
ccctacgact ctttactctc tggagagggc cagtggtggt agctataagc ttggccacat       300
ttttttttcc tttattcctt tgtcagagat gcgattcatc catatgctan aaaccaacag       360
agtgactttt acaaaattcc tataganatt gtgaataaaa ccttacctat agttgccatt       420
actttgctct ccctaatata cctc                                             444
```

        <210> 215
        <211> 366
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(366)
        <223> n = A,T,C or G

```
        <400> 215
acttatgagc agagcgacat atccaagtgt anactgaata aaactgaatt ctctccagtt        60
```

76

```
taaagcattg ctcactgaag ggatagaagt gactgccagg agggaaagta agccaaggct       120
cattatgcca aagganatat acatttcaat tctccaaact tcttcctcat tccaagagtt       180
ttcaatattt gcatgaacct gctgataagc catgttgaga aacaaatatc tctctgacct       240
tctcatcggt aagcagaggc tgtaggcaac atggaccata gcgaanaaaa aacttagtaa       300
tccaagctgt tttctacact gtaaccaggt ttccaaccaa ggtggaaatc tcctatactt       360
ggtgcc                                                                  366

        <210> 216
        <211> 260
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(260)
        <223> n = A,T,C or G

        <400> 216
ctgtataaac agaactccac tgcangaggg agggccgggc caggagaatc tccgcttgtc        60
caagacaggg gcctaaggag ggtctccaca ctgctnntaa gggctnttnc attttttttat      120
taataaaaag tnnaaaaggc ctcttctcaa ctttttttccc ttnggctgga aaatttaaaa      180
atcaaaaatt tcctnaagtt ntcaagctat catatatact ntatcctgaa aaagcaacat       240
aattcttcct tccctccttt                                                   260

        <210> 217
        <211> 262
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(262)
        <223> n = A,T,C or G

        <400> 217
acctacgtgg gtaagtttan aaatgttata atttcaggaa naggaacgca tataattgta        60
tcttgcctat aattttctat tttaataagg aaatagcaaa ttggggtggg gggaatgtag       120
ggcattctac agtttgagca aaatgcaatt aaatgtggaa ggacagcact gaaaaatttt       180
atgaataatc tgtatgatta tatgtctcta gagtagattt ataattagcc acttacccta       240
atatccttca tgcttgtaaa gt                                                 262

        <210> 218
        <211> 205
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(205)
        <223> n = A,T,C or G

        <400> 218
accaaggtgg tgcattaccg gaantggatc aangacacca tcgtggccaa cccctgagca        60
cccctatcaa ctcccttttg tagtaaactt ggaaccttgg aaatgaccag gccaagactc       120
aggcctcccc agttctactg acctttgtcc ttangtntna ngtccagggt tgctaggaaa       180
anaaatcagc agacacaggt gtaaa                                              205

        <210> 219
```

77

```
        <211> 114
        <212> DNA
        <213> Homo sapien

        <400> 219
tactgttttg tctcagtaac aataaataca aaaagactgg ttgtgttccg gccccatcca        60
accacgaagt tgatttctct tgtgtgcaga gtgactgatt ttaaaggaca tgga             114

        <210> 220
        <211> 93
        <212> DNA
        <213> Homo sapien

        <400> 220
actagccagc acaaaaggca gggtagcctg aattgctttc tgctctttac atttctttta        60
aaataagcat ttagtgctca gtccctactg agt                                    93

        <210> 221
        <211> 167
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(167)
        <223> n = A,T,C or G

        <400> 221
actangtgca ggtgcgcaca aatatttgtc gatattccct tcatcttgga ttccatgagg        60
tcttttgccc agcctgtggc tctactgtag taagtttctg ctgatgagga gccagnatgc       120
cccccactac cttccctgac gctccccana aatcacccaa cctctgt                     167

        <210> 222
        <211> 351
        <212> DNA
        <213> Homo sapien

        <400> 222
agggcgtggt gcggagggcg gtactgacct cattagtagg aggatgcatt ctggcacccc        60
gttcttcacc tgtcccccaa tccttaaaag gccatactgc ataaagtcaa caacagataa       120
atgtttgctg aattaaagga tggatgaaaa aaattaataa tgaatttttg cataatccaa       180
ttttctcttt tatatttcta gaagaagttt ctttgagcct attagatccc gggaatcttt       240
taggtgagca tgattagaga gcttgtaggt tgcttttaca tatatctggc atatttgagt       300
ctcgtatcaa aacaatagat tggtaaaggt ggtattattg tattgataag t               351

        <210> 223
        <211> 383
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(383)
        <223> n = A,T,C or G

        <400> 223
aaaacaaaca aacaaaaaaa acaattcttc attcagaaaa attatcttag ggactgatat        60
tggtaattat ggtcaatttta atwrtrttkt ggggcatttc cttacattgt cttgacaaga      120
```

78

```
ttaaaatgtc tgtgccaaaa ttttgtattt tatttggaga cttcttatca aaagtaatgc    180
tgccaaagga agtctaagga attagtagtg ttcccmtcac ttgtttggag tgtgctattc    240
taaaagattt tgatttcctg gaatgacaat tatatttttaa ctttggtggg ggaaanagtt    300
ataggaccac agtcttcact tctgatactt gtaaattaat cttttattgc acttgttttg    360
accattaagc tatatgttta aaa                                            383
```

```
        <210> 224
        <211> 320
        <212> DNA
        <213> Homo sapien

        <400> 224
cccctgaagg cttcttgtta gaaaatagta cagttacaac caataggaac aacaaaaga     60
aaaagtttgt gacattgtag tagggagtgt gtaccccta ctccccatca aaaaaaaaat    120
ggatacatgg ttaaaggata raagggcaat attttatcat atgttctaaa agagaaggaa    180
gagaaaatac tactttctcr aaatggaagc ccttaaaggt gctttgatac tgaaggacac    240
aaatgtggcc gtccatcctc ctttaragtt gcatgacttg gacacggtaa ctgttgcagt    300
tttaractcm gcattgtgac                                                320
```

```
        <210> 225
        <211> 1214
        <212> DNA
        <213> Homo sapien

        <400> 225
gaggactgca gcccgcactc gcagccctgg caggcggcac tggtcatgga aaacgaattg     60
ttctgctcgg gcgtcctggt gcatccgcag tgggtgctgt cagccgcaca ctgtttccag    120
aactcctaca ccatcgggct gggcctgcac agtcttgagg ccgaccaaga gccagggagc    180
cagatggtgg aggccagcct ctccgtacgg cacccagagt acaacagacc cttgctcgct    240
aacgacctca tgctcatcaa gttggacgaa tccgtgtccg agtctgacac catccggagc    300
atcagcattg cttcgcagtg ccctaccgcg gggaactctt gcctcgtttc tggctggggt    360
ctgctggcga acggcagaat gcctaccgtg ctgcagtgcg tgaacgtgtc ggtggtgtct    420
gaggaggtct gcagtaagct ctatgacccg ctgtaccacc ccagcatgtt ctgcgccggc    480
ggagggcaag accagaagga ctcctgcaac ggtgactctg gggggcccct gatctgcaac    540
gggtacttgc agggccttgt gtctttcgga aaagcccgt gtggccaagt tggcgtgcca     600
ggtgtctaca ccaacctctg caaattcact gagtggatag agaaaaccgt ccaggccagt    660
taactctggg gactgggaac ccatgaaatt gacccccaaa tacatcctgc ggaaggaatt    720
caggaatatc tgttcccagc ccctcctccc tcaggcccag gagtccaggc ccccagcccc    780
tcctccctca aaccaagggt acagatcccc agcccctcct ccctcagacc caggagtcca    840
gacccccccag cccctcctcc ctcagaccca ggagtccagc ccctcctccc tcagacccag    900
gagtccagac cccccagccc ctcctccctc agacccaggg gtccaggccc ccaacccctc    960
ctccctcaga ctcagaggtc caagccccca accctcctt ccccagaccc agaggtccag     1020
gtcccagccc ctcctccctc agacccagcg gtccaatgcc acctagactc tccctgtaca    1080
cagtgccccc ttgtggcacg ttgacccaac cttaccagtt ggttttttcat tttttgtccc    1140
tttcccctag atccagaaat aaagtctaag agaagcgcaa aaaaaaaaa aaaaaaaaa     1200
aaaaaaaaaa aaaa                                                      1214
```

```
        <210> 226
        <211> 119
        <212> DNA
        <213> Homo sapien

        <400> 226
acccagtatg tgcagggaga cggaacccca tgtgacagcc cactccacca gggttcccaa     60
agaacctggc ccagtcataa tcattcatcc tgacagtggc aataatcacg ataaccagt     119
```

```
        <210> 227
        <211> 818
```

79

```
        <212> DNA
        <213> Homo sapien

        <400> 227
acaattcata gggacgacca atgaggacag ggaatgaacc cggctctccc ccagccctga        60
tttttgctac atatggggtc ccttttcatt ctttgcaaaa acactgggtt ttctgagaac       120
acggacggtt cttagcacaa tttgtgaaat ctgtgtaraa ccgggctttg caggggagat       180
aattttcctc ctctggagga aaggtggtga ttgacaggca gggagacagt gacaaggcta       240
gagaaagcca cgctcggcct tctctgaacc aggatggaac ggcagacccc tgaaaacgaa       300
gcttgtcccc ttccaatcag ccacttctga gaaccccat ctaacttcct actggaaaag        360
agggcctcct caggagcagt ccaagagttt tcaaagataa cgtgacaact accatctaga       420
ggaaagggtg caccctcagc agagaagccg agagcttaac tctggtcgtt tccagagaca       480
acctgctggc tgtcttggga tgcgcccagc ctttgagagg ccactacccc atgaacttct       540
gccatccact ggacatgaag ctgaggacac tgggcttcaa cactgagttg tcatgagagg       600
gacaggctct gccctcaagc cggctgaggg cagcaaccac tctcctcccc tttctcacgc       660
aaagccattc ccacaaatcc agaccatacc atgaagcaac gagacccaaa cagtttggct       720
caagaggata tgaggactgt ctcagcctgg ctttgggctg acaccatgca cacacacaag       780
gtccacttct aggttttcag cctagatggg agtcgtgt                              818

        <210> 228
        <211> 744
        <212> DNA
        <213> Homo sapien

        <400> 228
actggagaca ctgttgaact tgatcaagac ccagaccacc ccaggtctcc ttcgtgggat        60
gtcatgacgt ttgacatacc tttggaacga gcctcctcct tggaagatgg aagaccgtgt       120
tcgtggccga cctggcctct cctggcctgt ttcttaagat gcggagtcac atttcaatgg       180
taggaaaagt ggcttcgtaa aatagaagag cagtcactgt ggaactacca aatggcgaga       240
tgctcggtgc acattggggt gctttgggat aaaagattta tgagccaact attctctggc       300
accagattct aggccagttt gttccactga agcttttccc acagcagtcc acctctgcag       360
gctggcagct gaatggcttg ccggtggctc tgtggcaaga tcacactgag atcgatgggt       420
gagaaggcta ggatgcttgt ctagtgttct tagctgtcac gttggctcct tccaggttgg       480
ccagacggtg ttggccactc ccttctaaaa cacaggcgcc ctcctggtga cagtgacccg       540
ccgtggtatg ccttggccca ttccagcagt cccagttatg catttcaagt ttggggtttg       600
ttcttttcgt taatgttcct ctgtgttgtc agctgtcttc atttcctggg ctaagcagca       660
ttgggagatg tggaccagag atccactcct taagaaccag tggcgaaaga cactttcttt       720
cttcactctg aagtagctgg tggt                                             744

        <210> 229
        <211> 300
        <212> DNA
        <213> Homo sapien

        <400> 229
cgagtctggg ttttgtctat aaagtttgat ccctcctttt ctcatccaaa tcatgtgaac        60
cattacacat cgaaataaaa gaaaggtggc agacttgccc aacgccaggc tgacatgtgc       120
tgcagggttg ttgtttttta attattattg ttagaaacgt cacccacagt ccctgttaat       180
ttgtatgtga cagccaactc tgagaaggtc ctattttcc acctgcagag gatccagtct        240
cactaggctc ctccttgccc tcacactgga gtctccgcca gtgtgggtgc ccactgacat       300

        <210> 230
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 230
cagcagaaca aatacaaata tgaagagtgc aaagatctca taaaatctat gctgaggaat        60
```

80

```
gagcgacagt tcaaggagga gaagcttgca gagcagctca agcaagctga ggagctcagg      120
caatataaag tcctggttca cactcaggaa cgagagctga cccagttaag ggagaagttg      180
cgggaaggga gagatgcctc cctctcattg aatgagcatc tccaggccct cctcactccg      240
gatgaaccgg acaagtccca ggggcaggac ctccaagaaa cagacctcgg ccgcgaccac      300
g                                                                      301
```

```
        <210> 231
        <211> 301
        <212> DNA
        <213> Homo sapien
```

```
        <400> 231
gcaagcacgc tggcaaatct ctgtcaggtc agctccagag aagccattag tcattttagc       60
caggaactcc aagtccacat ccttggcaac tggggacttg cgcaggttag ccttgaggat      120
ggcaacacgg gacttctcat caggaagtgg gatgtagatg agctgatcaa gacggccagg      180
tctgaggatg gcaggatcaa tgatgtcagg ccggttggta ccgccaatga tgaacacatt      240
ttttttgtg gacatgccat ccatttctgt caggatctgg ttgatgactc ggtcagcagc      300
c                                                                      301
```

```
        <210> 232
        <211> 301
        <212> DNA
        <213> Homo sapien
```

```
        <400> 232
agtaggtatt tcgtgagaag ttcaacacca aaactggaac atagttctcc ttcaagtgtt       60
ggcgacagcg gggcttcctg attctggaat ataactttgt gtaaattaac agccacctat      120
agaagagtcc atctgctgtg aaggagagac agagaactct gggttccgtc gtcctgtcca      180
cgtgctgtac caagtgctgg tgccagcctg ttacctgttc tcactgaaaa tctggctaat      240
gctcttgtgt atcacttctg attctgacaa tcaatcaatc aatggcctag agcactgact      300
g                                                                      301
```

```
        <210> 233
        <211> 301
        <212> DNA
        <213> Homo sapien
```

```
        <400> 233
atgactgact tcccagtaag gctctctaag gggtaagtag gaggatccac aggatttgag       60
atgctaaggc cccagagatc gtttgatcca accctcttat tttcagaggg gaaaatgggg      120
cctagaagtt acagagcatc tagctggtgc gctggcaccc ctggcctcac acagactccc      180
gagtagctgg gactacaggc acacagtcac tgaagcaggc cctgttagca attctatgcg      240
tacaaattaa catgagatga gtagagactt tattgagaaa gcaagagaaa atcctatcaa      300
c                                                                      301
```

```
        <210> 234
        <211> 301
        <212> DNA
        <213> Homo sapien
```

```
        <400> 234
aggtcctaca catcgagact catccatgat tgatatgaat ttaaaaatta caagcaaaga       60
cattttattc atcatgatgc tttcttttgt ttcttctttt cgttttcttc ttttttctttt      120
tcaatttcag caacatactt ctcaatttct tcaggattta aaatcttgag ggattgatct      180
cgcctcatga cagcaagttc aatgtttttg ccacctgact gaaccacttc caggagtgcc      240
ttgatcacca gcttaatggt cagatcatct gcttcaatgg cttcgtcagt atagttcttc      300
t                                                                      301
```

81

```
        <210> 235
        <211> 283
        <212> DNA
        <213> Homo sapien

        <400> 235
tggggctgtg catcaggcgg gtttgagaaa tattcaattc tcagcagaag ccagaatttg      60
aattccctca tcttttaggg aatcatttac caggtttgga gaggattcag acagctcagg     120
tgctttcact aatgtctctg aacttctgtc cctctttgtt catggatagt ccaataaata     180
atgttatctt tgaactgatg ctcataggag agaatataag aactctgagt gatatcaaca     240
ttagggattc aaagaaatat tagatttaag ctcacactgg tca                       283

        <210> 236
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 236
aggtcctcca ccaactgcct gaagcacggt taaaattggg aagaagtata gtgcagcata      60
aatactttta aatcgatcag atttccctaa cccacatgca atcttcttca ccagaagagg     120
tcggagcagc atcattaata ccaagcagaa tgcgtaatag ataaatacaa tggtatatag     180
tgggtagacg gcttcatgag tacagtgtac tgtggtatcg taatctggac ttgggttgta     240
aagcatcgtg taccagtcag aaagcatcaa tactcgacat gaacgaatat aaagaacacc     300
a                                                                      301

        <210> 237
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 237
cagtggtagt ggtggtggac gtggcgttgg tcgtggtgcc ttttttggtg cccgtcacaa      60
actcaatttt tgttcgctcc tttttggcct tttccaattt gtccatctca attttctggg     120
ccttggctaa tgcctcatag taggagtcct cagaccagcc atggggatca aacatatcct     180
ttgggtagtt ggtgccaagc tcgtcaatgg cacagaatgg atcagcttct cgtaaatcta     240
gggttccgaa attctttctt cctttggata atgtagttca tatccattcc ctcctttatc     300
t                                                                      301

        <210> 238
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 238
gggcaggttt tttttttttt tttttttgatg gtgcagaccc ttgctttatt tgtctgactt      60
gttcacagtt cagccccctg ctcagaaaac caacgggcca gctaaggaga ggaggaggca     120
ccttgagact ccggagtcg aggctctcca gggttcccca gcccatcaat cattttctgc      180
accccctgcc tgggaagcag ctccctgggg ggtgggaatg ggtgactaga agggatttca     240
gtgtgggacc cagggtctgt tcttcacagt aggaggtgga agggatgact aatttctttta    300
t                                                                      301

        <210> 239
        <211> 239
        <212> DNA
        <213> Homo sapien

        <400> 239
ataagcagct agggaattct ttatttagta atgtcctaac ataaaagttc acataactgc      60
```

82

```
ttctgtcaaa ccatgatact gagctttgtg acaacccaga aataactaag agaaggcaaa      120
cataatacct tagagatcaa gaaacattta cacagttcaa ctgtttaaaa atagctcaac      180
attcagccag tgagtagagt gtgaatgcca gcatacacag tatacaggtc cttcaggga       239
```

```
        <210> 240
        <211> 300
        <212> DNA
        <213> Homo sapien

        <400> 240
ggtcctaatg aagcagcagc ttccacattt taacgcaggt ttacggtgat actgtccttt       60
gggatctgcc ctccagtgga accttttaag gaagaagtgg gcccaagcta agttccacat      120
gctgggtgag ccagatgact tctgttccct ggtcactttc ttcaatgggg cgaatggggg      180
ctgccaggtt tttaaaatca tgcttcatct tgaagcacac ggtcacttca ccctcctcac      240
gctgtgggtg tactttgatg aaaataccca ctttgttggc ctttctgaag ctataatgtc      300
```

```
        <210> 241
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 241
gaggtctggt gctgaggtct ctgggctagg aagaggagtt ctgtggagct ggaagccaga       60
cctctttgga ggaaactcca gcagctatgt tggtgtctct gagggaatgc aacaaggctg      120
ctcctccatg tattggaaaa ctgcaaactg gactcaactg gaaggaagtg ctgctgccag      180
tgtgaagaac cagcctgagg tgacagaaac ggaagcaaac aggaacagcc agtcttttct      240
tcctcctcct gtcatacggt ctctctcaag catcctttgt tgtcaggggc ctaaaaggga      300
g                                                                       301
```

```
        <210> 242
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 242
ccgaggtcct gggatgcaac caatcactct gtttcacgtg acttttatca ccatacaatt       60
tgtggcattt cctcattttc tacattgtag aatcaagagt gtaaataaat gtatatcgat      120
gtcttcaaga atatatcatt ccttttttcac tagaacccat tcaaaatata agtcaagaat      180
cttaatatca acaaatatat caagcaaact ggaaggcaga ataactacca taatttagta      240
taagtaccca aagttttata aatcaaaagc cctaatgata accattttta gaattcaatc      300
a                                                                       301
```

```
        <210> 243
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 243
aggtaagtcc cagtttgaag ctcaaaagat ctggtatgag cataggctca tcgacgacat       60
ggtggcccaa gctatgaaat cagagggagg cttcatctgg gcctgtaaaa actatgatgg      120
tgacgtgcag tcggactctg tggcccaagg gtatggctct ctcggcatga tgaccagcgt      180
gctggtttgt ccagatggca agacagtaga agcagaggct gcccacggga ctgtaacccg      240
tcactaccgc atgttccaga aggacagga gacgtccacc aatcccattg cttccatttt      300
t                                                                       301
```

```
        <210> 244
        <211> 300
        <212> DNA
```

83

```
<213> Homo sapien

<400> 244
gctggtttgc aagaatgaaa tgaatgattc tacagctagg acttaacctt gaaatggaaa      60
gtcatgcaat cccatttgca ggatctgtct gtgcacatgc ctctgtagag agcagcattc     120
ccagggacct tggaaacagt tgacactgta aggtgcttgc tccccaagac acatcctaaa     180
aggtgttgta atggtgaaaa cgtcttcctt ctttattgcc ccttcttatt tatgtgaaca     240
actgtttgtc ttttgtgtat cttttttaaa ctgtaaagtt caattgtgaa aatgaatatc     300


    <210> 245
    <211> 301
    <212> DNA
    <213> Homo sapien

<400> 245
gtctgagtat ttaaaatgtt attgaaatta tccccaacca atgttagaaa agaaagaggt      60
tatatactta gataaaaaat gaggtgaatt actatccatt gaaatcatgc tcttagaatt     120
aaggccagga gatattgtca ttaatgtara cttcaggaca ctagagtata gcagccctat     180
gttttcaaag agcagagatg caattaaata ttgtttagca tcaaaaaggc cactcaatac     240
agctaataaa atgaaagacc taatttctaa agcaattctt tataatttac aaagttttaa     300
g                                                                     301


    <210> 246
    <211> 301
    <212> DNA
    <213> Homo sapien

<400> 246
ggtctgtcct acaatgcctg cttcttgaaa gaagtcggca ctttctagaa tagctaaata      60
acctgggctt attttaaaga actatttgta gctcagattg gttttcctat ggctaaaata     120
agtgcttctt gtgaaaatta aataaaacag ttaattcaaa gccttgatat atgttaccac     180
taacaatcat actaaatata ttttgaagta caaagtttga catgctctaa agtgacaacc     240
caaatgtgtc ttacaaaaca cgttcctaac aaggtatgct ttacactacc aatgcagaaa     300
c                                                                     301


    <210> 247
    <211> 301
    <212> DNA
    <213> Homo sapien

<400> 247
aggtcctttg gcagggctca tggatcagag ctcaaactgg agggaaaggc atttcgggta      60
gcctaagagg gcgactggcg gcagcacaac caaggaaggc aaggttgttt cccccacgct     120
gtgtcctgtg ttcaggtgcg acacacaatc ctcatggaa caggatcacc catgcgctgc      180
ccttgatgat caaggttggg gcttaagtgg attaagggag gcaagttctg ggttccttgc     240
cttttcaaac catgaagtca ggctctgtat ccctcctttt cctaactgat attctaacta     300
a                                                                     301


    <210> 248
    <211> 301
    <212> DNA
    <213> Homo sapien

<400> 248
aggtccttgg agatgccatt tcagccgaag gactcttctw ttcggaagta caccctcact      60
attaggaaga ttcttagggg taattttct gaggaaggag aactagccaa cttaagaatt     120
acaggaagaa agtggtttgg aagacagcca aagaaataaa agcagattaa attgtatcag     180
gtacattcca gcctgttggc aactccataa aaacatttca gattttaatc ccgaatttag     240
```

84

```
ctaatgagac tggattttttg ttttttatgt tgtgtgtcgc agagctaaaa actcagttcc        300
c                                                                        301

        <210> 249
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 249
gtccagagga agcacctggt gctgaactag gcttgccctg ctgtgaactt gcacttggag        60
ccctgacgct gctgttctcc ccgaaaaacc cgaccgacct ccgcgatctc cgtcccgccc        120
ccagggagac acagcagtga ctcagagctg gtcgcacact gtgcctccct cctcaccgcc        180
catcgtaatg aattattttg aaaattaatt ccaccatcct ttcagattct ggatggaaag        240
actgaatctt tgactcagaa ttgtttgctg aaaagaatga tgtgactttc ttagtcattt        300
a                                                                        301

        <210> 250
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 250
ggtctgtgac aaggacttgc aggctgtggg aggcaagtga cccttaacac tacacttctc        60
cttatctttta ttggcttgat aaacataatt atttctaaca ctagcttatt tccagttgcc        120
cataagcaca tcagtacttt tctctggctg gaatagtaaa ctaaagtatg gtacatctac        180
ctaaaagact actatgtgga ataatacata ctaatgaagt attacatgat ttaaagacta        240
caataaaacc aaacatgctt ataacattaa gaaaacaat aaagatacat gattgaaacc        300
a                                                                        301

        <210> 251
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 251
gccgaggtcc tacatttggc ccagtttccc cctgcatcct ctccagggcc cctgcctcat        60
agacaacctc atagagcata ggagaactgg ttgccctggg ggcaggggga ctgtctggat        120
ggcaggggtc ctcaaaaatg ccactgtcac tgccaggaaa tgcttctgag cagtacacct        180
cattgggatc aatgaaaagc ttcaagaaat cttcaggctc actctcttga aggcccggaa        240
cctctggagg ggggcagtgg aatcccagct ccaggacgga tcctgtcgaa aagatatcct        300
c                                                                        301

        <210> 252
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 252
gcaaccaatc actctgtttc acgtgacttt tatcaccata caatttgtgg catttcctca        60
ttttctacat tgtagaatca agagtgtaaa taaatgtata tcgatgtctt caagaatata        120
tcattccttt ttcactagga acccattcaa aatataagtc aagaatctta atatcaacaa        180
atatatcaag caaactggaa ggcagaataa ctaccataat ttagtataag tacccaaagt        240
tttataaatc aaaagcccta atgataacca tttttagaat tcaatcatca ctgtagaatc        300
a                                                                        301

        <210> 253
        <211> 301
        <212> DNA
```

85

```
        <213> Homo sapien

        <400> 253
ttccctaaga agatgttatt ttgttgggtt ttgttccccc tccatctcga ttctcgtacc        60
caactaaaaa aaaaaaataa agaaaaaatg tgctgcgttc tgaaaaataa ctccttagct       120
tggtctgatt gttttcagac cttaaaatat aaacttgttt cacaagcttt aatccatgtg       180
gatttttttt cttagagaac cacaaaacat aaaaggagca agtcggactg aatacctgtt       240
tccatagtgc ccacagggta ttcctcacat tttctccata ggaaaatgct ttttcccaag       300
g                                                                       301

        <210> 254
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 254
cgctgcgcct ttcccttggg ggaggggcaa ggccagaggg ggtccaagtg cagcacgagg        60
aacttgacca attcccttga agcgggtggg ttaaaccctg taaatgggaa caaaatcccc       120
ccaaatctct tcatcttacc ctggtggact cctgactgta gaattttttg gttgaaacaa       180
gaaaaaaata aagctttgga cttttcaagg ttgcttaaca ggtactgaaa gactggcctc       240
acttaaactg agccaggaaa agctgcagat ttattaatgg gtgtgttagt gtgcagtgcc       300
t                                                                       301

        <210> 255
        <211> 302
        <212> DNA
        <213> Homo sapien

        <400> 255
agcttttttt tttttttttt tttttttttt ttcattaaaa aatagtgctc tttattataa        60
attactgaaa tgtttctttt ctgaatataa atataaatat gtgcaaagtt tgacttggat       120
tgggattttg ttgagttctt caagcatctc ctaataccct caagggcctg agtaggggg       180
aggaaaaagg actggaggtg gaatctttat aaaaaacaag agtgattgag gcagattgta       240
aacattatta aaaaacaaga aacaaacaaa aaaatagaga aaaaaaccac cccaacacac       300
aa                                                                      302

        <210> 256
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 256
gttccagaaa acattgaagg tggcttccca aagtctaact agggataccc cctctagcct        60
aggaccctcc tccccacacc tcaatccacc aaaccatcca taatgcaccc agataggccc       120
accccaaaa gcctggacac cttgagcaca cagttatgac caggacagac tcatctctat       180
aggcaaatag ctgctggcaa actggcatta cctggtttgt ggggatgggg gggcaagtgt       240
gtggcctctc ggcctggtta gcaagaacat tcagggtagg cctaagttan tcgtgttagt       300
t                                                                       301

        <210> 257
        <211> 301
        <212> DNA
        <213> Homo sapien
```

```
        <400> 257
gttgtggagg aactctggct tgctcattaa gtcctactga ttttcactat cccctgaatt      60
tccccactta tttttgtctt tcactatcgc aggccttaga agaggtctac ctgcctccag     120
tcttacctag tccagtctac cccctggagt tagaatggcc atcctgaagt gaaaagtaat     180
gtcacattac tcccttcagt gatttcttgt agaagtgcca atccctgaat gccaccaaga     240
tcttaatctt cacatcttta atcttatctc tttgactcct ctttacaccg gagaaggctc     300
c                                                                     301


        <210> 258
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 258
cagcagtagt agatgccgta tgccagcacg cccagcactc ccaggatcag caccagcacc      60
aggggcccag ccaccaggcg cagaagcaag ataaacagta ggctcaagac cagagccacc     120
cccagggcaa caagaatcca ataccaggac tgggcaaaat cttcaaagat cttaacactg     180
atgtctcggg cattgaggct gtcaataana cgctgatccc ctgctgtatg gtggtgtcat     240
tggtgatccc tgggagcgcc ggtggagtaa cgttggtcca tggaaagcag cgcccacaac     300
t                                                                     301


        <210> 259
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 259
tcatatatgc aaacaaatgc agactangcc tcaggcagag actaaaggac atctcttggg      60
gtgtcctgaa gtgatttgga cccctgaggg cagacaccta agtaggaatc ccagtgggaa     120
gcaaagccat aaggaagccc aggattcctt gtgatcagga agtgggccag gaaggtctgt     180
tccagctcac atctcatctg catgcagcac ggaccggatg cgcccactgg gtcttggctt     240
ccctcccatc ttctcaagca gtgtccttgt tgagccattt gcatccttgg ctccaggtgg     300
c                                                                     301


        <210> 260
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 260
tttttttct ccctaaggaa aaagaaggaa caagtctcat aaaaccaaat aagcaatggt      60
aaggtgtctt aacttgaaaa agattaggag tcactggttt acaagttata attgaatgaa     120
agaactgtaa cagccacagt tggccatttc atgccaatgg cagcaaacaa caggattaac     180
tagggcaaaa taaataagtg tgtggaagcc ctgataagtg cttaataaac agactgattc     240
actgagacat cagtacctgc ccgggcggcc gctcgagccg aattctgcag atatccatca     300
c                                                                     301
```

87

```
        <210> 261
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 261
aaatattcga gcaaatcctg taactaatgt gtctccataa aaggctttga actcagtgaa        60
tctgcttcca tccacgattc tagcaatgac ctctcggaca tcaaagctcc tcttaaggtt       120
agcaccaact attccataca attcatcagc aggaaataaa ggctcttcag aaggttcaat       180
ggtgacatcc aatttcttct gataatttag attcctcaca accttcctag ttaagtgaag       240
ggcatgatga tcatccaaag cccagtggtc acttactcca gactttctgc aatgaagatc       300
a                                                                       301

        <210> 262
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 262
gaggagagcc tgttacagca tttgtaagca cagaatactc caggagtatt tgtaattgtc        60
tgtgagcttc ttgccgcaag tctctcagaa atttaaaaag atgcaaatcc ctgagtcacc       120
cctagacttc ctaaaccaga tcctctgggg ctggaacctg gcactctgca tttgtaatga       180
gggctttctg gtgcacacct aattttgtgc atctttgccc taaatcctgg attagtgccc       240
catcattacc cccacattat aatgggatag attcagagca gatactctcc agcaaagaat       300
c                                                                       301

        <210> 263
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 263
tttagcttgt ggtaaatgac tcacaaaact gattttaaaa tcaagttaat gtgaattttg        60
aaaattacta cttaatccta attcacaata acaatggcat taaggtttga cttgagttgg       120
ttcttagtat tatttatggt aaataggctc ttaccacttg caaataactg gccacatcat       180
taatgactga cttcccagta aggctctcta aggggtaagt angaggatcc acaggatttg       240
agatgctaag gccccagaga tcgtttgatc caaccctctt attttcagag gggaaaatgg       300
g                                                                       301

        <210> 264
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 264
aaagacgtta aaccactcta ctaccacttg tggaactctc aaagggtaaa tgacaaascc        60
aatgaatgac tctaaaaaca atatttacat ttaatggttt gtagacaata aaaaaacaag       120
gtggatagat ctagaattgt aacattttaa gaaaaccata scatttgaca gatgagaaag       180
ctcaattata gatgcaaagt tataactaaa ctactatagt agtaaagaaa tacatttcac       240
acccttcata taaattcact atcttggctt gaggcactcc ataaaatgta tcacgtgcat       300
a                                                                       301

        <210> 265
```

88

```
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 265
tgcccaagtt atgtgtaagt gtatccgcac ccagaggtaa aactacactg tcatctttgt          60
cttcttgtga cgcagtattt cttctctggg gagaagccgg gaagtcttct cctggctcta         120
catattcttg gaagtctcta atcaactttt gttccatttg tttcatttct tcaggaggga         180
ttttcagttt gtcaacatgt tctctaacaa cacttgccca tttctgtaaa gaatccaaag         240
cagtccaagg ctttgacatg tcaacaacca gcataactag agtatccttc agagatacgg         300
c                                                                          301

        <210> 266
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 266
taccgtctgc ccttcctccc atccaggcca tctgcgaatc tacatgggtc ctcctattcg          60
acaccagatc actctttcct ctacccacag gcttgctatg agcaagagac acaacctcct         120
ctcttctgtg ttccagcttc ttttcctgtt cttcccaccc cttaagttct attcctgggg         180
atagagacac caatacccat aacctctctc ctaagcctcc ttataaccca gggtgcacag         240
cacagactcc tgacaactgg taaggccaat gaactgggag ctcacagctg gctgtgcctg         300
a                                                                          301

        <210> 267
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 267
aaagagcaca ggccagctca gcctgccctg gccatctaga ctcagcctgg ctccatgggg          60
gttctcagtg ctgagtccat ccaggaaaag ctcacctaga ccttctgagg ctgaatcttc         120
atcctcacag gcagcttctg agagcctgat attcctagcc ttgatggtct ggagtaaagc         180
ctcattctga ttcctctcct tcttttcttt caagttggct ttcctcacat ccctctgttc         240
aattcgcttc agcttgtctg ctttagccct cattccaga agcttcttct ctttggcatc          300
t                                                                          301

        <210> 268
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 268
aatgtctcac tcaactactt cccagcctac cgtggcctaa ttctgggagt tttcttctta          60
gatcttggga gagctggttc ttctaaggag aaggaggaag gacagatgta actttggatc         120
tcgaagagga agtctaatgg aagtaattag tcaacggtcc ttgtttagac tcttggaata         180
tgctgggtgg ctcagtgagc ccttttggag aaagcaagta ttattcttaa ggagtaacca         240
cttcccattg ttctactttc taccatcatc aattgtatat tatgtattct ttggagaact         300
a                                                                          301

        <210> 269
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 269
taacaatata cactagctat ctttttaact gtccatcatt agcaccaatg aagattcaat          60
```

89

```
aaaattacct ttattcacac atctcaaaac aattctgcaa attcttagtg aagtttaact    120
atagtcacag accttaaata ttcacattgt tttctatgtc tactgaaaat aagttcacta    180
cttttctgga tattctttac aaaatcttat taaaattcct ggtattatca cccccaatta    240
tacagtagca caaccacctt atgtagtttt tacatgatag ctctgtagaa gtttcacatc    300
t                                                                     301
```

        <210> 270
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 270
```
cattgaagag cttttgcgaa acatcagaac acaagtgctt ataaaattaa ttaagcctta     60
cacaagaata catattcctt ttatttctaa ggagttaaac atagatgtag ctgatgtgga    120
gagcttgctg gtgcagtgca tattggataa cactattcat ggccgaattg atcaagtcaa    180
ccaactcctt gaactggatc atcagaagaa gggtggtgca cgatatactg cactagataa    240
tggaccaacc aactaaattc tctcaccagg ctgtatcagt aaactggctt aacagaaaac    300
a                                                                     301
```

        <210> 271
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 271
```
aaaaggttct cataagatta acaatttaaa taaatatttg atagaacatt ctttctcatt     60
tttatagctc atctttaggg ttgatattca gttcatgctt cccttgctgt tcttgatcca    120
gaattgcaat cacttcatca gcctgtattc gctccaattc tctataaagt gggtccaagg    180
tgaaccacag agccacagca cacctctttc ccttggtgac tgccttcacc ccatganggt    240
tctctcctcc agatganaac tgatcatgcg cccacatttt gggtttttata gaagcagtca    300
c                                                                     301
```

        <210> 272
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 272
```
taaattgcta agccacagat aacaccaatc aaatggaaca aatcactgtc ttcaaatgtc     60
ttatcagaaa accaaatgag cctggaatct tcataatacc taaacatgcc gtatttagga    120
tccaataatt ccctcatgat gagcaagaaa aattctttgc gcacccctcc tgcatccaca    180
gcatcttctc caacaaatat aaccttgagt ggcttcttgt aatctatgtt ctttgttttc    240
ctaaggactt ccattgcatc tcctacaata ttttctctac gcaccactag aattaagcag    300
g                                                                     301
```

        <210> 273
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)

90

```
        <223> n = A,T,C or G

        <400> 273
acatgtgtgt atgtgtatct ttgggaaaan aanaagacat cttgtttayt attttttggg     60
agagangctg ggacatggat aatcacwtaa tttgctayta tyactttaat ctgactygaa    120
gaaccgtcta aaaataaaat ttaccatgtc dtatattcct tatagtatgc ttatttcacc    180
ttytttctgt ccagagagag tatcagtgac ananatttma gggtgaamac atgmattggt    240
gggacttnty tttacngagm accctgcccg sgcgccctcg makcngantt ccgcsananc    300
t                                                                    301

        <210> 274
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 274
cttatatact ctttctcaga ggcaaaagag gagatgggta atgtagacaa ttctttgagg     60
aacagtaaat gattattaga gagaangaat ggaccaagga gacagaaatt aacttgtaaa    120
tgattctctt tggaatctga atgagatcaa gaggccagct ttagcttgtg gaaaagtcca    180
tctaggtatg gttgcattct cgtcttcttt tctgcagtag ataatgaggt aaccgaaggc    240
aattgtgctt cttttgataa gaagctttct tggtcatatc aggaaattcc aganaaagtc    300
c                                                                    301

        <210> 275
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 275
tcggtgtcag cagcacgtgg cattgaacat tgcaatgtgg agcccaaacc acagaaaatg     60
gggtgaaatt ggccaacttt ctattaactt atgttggcaa ttttgccacc aacagtaagc    120
tggcccttct aataaaagaa aattgaaagg tttctcacta aacggaatta agtagtggag    180
tcaagagact cccaggcctc agcgtacctg cccgggcggc cgctcgaagc cgaattctgc    240
agatatccat cacactggcg gncgctcgan catgcatcta gaaggnccaa ttcgccctat    300
a                                                                    301

        <210> 276
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 276
tgtacacata ctcaataaat aaatgactgc attgtggtat tattactata ctgattatat     60
ttatcatgtg acttctaatt agaaaatgta tccaaaagca aaacagcaga tatacaaaat    120
taaagagaca gaagatagac attaacagat aaggcaactt atacattgag aatccaaatc    180
caatacattt aaacatttgg gaaatgaggg ggacaaatgg aagccagatc aaatttgtgt    240
aaaactattc agtatgtttc ccttgcttca tgtctgagaa ggctctcctt caatggggat    300
g                                                                    301
```

```
        <210> 277
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 277
tttgttgatg tcagtatttt attacttgcg ttatgagtgc tcacctggga aattctaaag        60
atacagagga cttggaggaa gcagagcaac tgaatttaat ttaaaagaag gaaaacattg       120
gaatcatggc actcctgata ctttcccaaa tcaacactct caatgcccca ccctcgtcct       180
caccatagtg gggagactaa agtggccacg gatttgcctt angtgtgcag tgcgttctga       240
gttcnctgtc gattacatct gaccagtctc cttttttcga agtccntccg ttcaatcttg       300
c                                                                        301

        <210> 278
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 278
taccactaca ctccagcctg ggcaacagag caagacctgt ctcaaagcat aaaatggaat        60
aacatatcaa atgaaacagg gaaaatgaag ctgacaattt atggaagcca gggcttgtca       120
cagtctctac tgttattatg cattacctgg gaatttatat aagcccttaa taataatgcc       180
aatgaacatc tcatgtgtgc tcacaatgtt ctggcactat tataagtgct tcacaggttt       240
tatgtgttct tcgtaacttt atggantagg tactcggccg cgaacacgct aagccgaatt       300
c                                                                        301

        <210> 279
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 279
aaagcaggaa tgacaaagct tgcttttctg gtatgttcta ggtgtattgt gacttttact        60
gttatattaa ttgccaatat aagtaaatat agattatata tgtatagtgt ttcacaaagc       120
ttagaccttt accttccagc cacccacag tgcttgatat ttcagagtca gtcattggtt       180
atacatgtgt agttccaaag cacataagct agaanaanaa atatttctag ggagcactac       240
catctgtttt cacatgaaat gccacacaca tagaactcca acatcaattt cattgcacag       300
a                                                                        301

        <210> 280
        <211> 301
        <212> DNA
```

92

```
          <213> Homo sapien

          <400> 280
ggtactggag ttttcctccc ctgtgaaaac gtaactactg ttgggagtga attgaggatg      60
tagaaaggtg gtggaaccaa attgtggtca atggaaatag gagaatatgg ttctcactct     120
tgagaaaaaa acctaagatt agcccaggta gttgcctgta acttcagttt ttctgcctgg     180
gtttgatata gtttagggtt ggggttagat taagatctaa attacatcag gacaaagaga     240
cagactatta actccacagt taattaagga ggtatgttcc atgtttattt gttaaagcag     300
t                                                                    301

          <210> 281
          <211> 301
          <212> DNA
          <213> Homo sapien

          <400> 281
aggtacaaga aggggaatgg gaaagagctg ctgctgtggc attgttcaac ttggatattc      60
gccgagcaat ccaaatcctg aatgaagggg catcttctga aaaaggagat ctgaatctca     120
atgtggtagc aatggcttta tcgggttata cggatgagaa gaactccctt tggagagaaa     180
tgtgtagcac actgcgatta cagctaaata acccgtattt gtgtgtcatg tttgcatttc     240
tgacaagtga aacaggatct tacgatggag ttttgtatga aaacaaagtt gcagtacctc     300
g                                                                    301

          <210> 282
          <211> 301
          <212> DNA
          <213> Homo sapien

          <400> 282
caggtactac agaattaaaa tactgacaag caagtagttt cttggcgtgc acgaattgca      60
tccagaaccc aaaaattaag aaattcaaaa agacattttg tgggcacctg ctagcacaga     120
agcgcagaag caaagcccag gcagaaccat gctaacctta cagctcagcc tgcacagaag     180
cgcagaagca aagcccaggc agaaccatgc taaccttaca gctcagcctg cacagaagcg     240
cagaagcaaa gcccaggcag aacatgctaa ccttacagct cagcctgcac agaagcacag     300
a                                                                    301

          <210> 283
          <211> 301
          <212> DNA
          <213> Homo sapien

          <400> 283
atctgtatac ggcagacaaa ctttatarag tgtagagagg tgagcgaaag gatgcaaaag      60
cactttgagg gctttataat aatatgctgc ttgaaaaaaa aaatgtgtag ttgatactca     120
gtgcatctcc agacatagta aggggttgct ctgaccaatc aggtgatcat ttttttctatc    180
acttcccagg ttttatgcaa aaattttgtt aaattctata atggtgatat gcatctttta     240
ggaaacatat acatttttaa aaatctattt tatgtaagaa ctgacagacg aatttgcttt     300
g                                                                    301

          <210> 284
          <211> 301
          <212> DNA
          <213> Homo sapien

          <400> 284
caggtacaaa acgctattaa gtggcttaga atttgaacat ttgtggtctt tatttacttt      60
gcttcgtgtg tgggcaaagc aacatcttcc ctaaatatat attaccaaga aaagcaagaa     120
gcagattagg tttttgacaa aacaaacagg ccaaaagggg gctgacctgg agcagagcat     180
```

93

```
ggtgagaggc aaggcatgag agggcaagtt tgttgtggac agatctgtgc ctactttatt        240
actggagtaa aagaaaacaa agttcattga tgtcgaagga tatatacagt gttagaaatt        300
a                                                                        301
```

        <210> 285
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 285
```
acatcaccat gatcggatcc cccacccatt atacgttgta tgtttacata aatactcttc        60
aatgatcatt agtgttttaa aaaaaatact gaaaactcct tctgcatccc aatctctaac        120
caggaaagca aatgctattt acagacctgc aagccctccc tcaaacnaaa ctatttctgg        180
attaaatatg tctgacttct tttgaggtca cacgactagg caaatgctat ttacgatctg        240
caaaagctgt ttgaagagtc aaagccccca tgtgaacacg atttctggac cctgtaacag        300
t                                                                        301
```

        <210> 286
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 286
```
taccactgca ttccagcctg ggtgacagag tgagactccg tctccaaaaa aaactttgct        60
tgtatattat ttttgcctta cagtggatca ttctagtagg aaaggacagt aagattttt        120
atcaaaatgt gtcatgccag taagagatgt tatattcttt tctcatttct tccccaccca        180
aaaataagct accatatagc ttataagtct caaatttttg ccttttacta aaatgtgatt        240
gtttctgttc attgtgtatg cttcatcacc tatattaggc aaattccatt ttttcccttg        300
t                                                                        301
```

        <210> 287
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 287
```
tacagatctg ggaactaaat attaaaaatg agtgtggctg gatatatgga gaatgttggg        60
cccagaagga acgtagagat cagatattac aacagctttg ttttgagggt tagaaatatg        120
aaatgatttg gttatgaacg cacagtttag gcagcaggggc cagaatcctg accctctgcc        180
ccgtggttat ctcctcccca gcttggctgc ctcatgttat cacagtattc cattttgttt        240
gttgcatgtc ttgtgaagcc atcaagattt tctcgtctgt tttcctctca ttggtaatgc        300
t                                                                        301
```

        <210> 288
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 288
```
gtacacctaa ctgcaaggac agctgaggaa tgtaatgggc agccgctttt aaagaagtag        60
agtcaatagg aagacaaatt ccagttccag ctcagtctgg gtatctgcaa agctgcaaaa        120
gatctttaaa gacaatttca agagaatatt tccttaaagt tggcaatttg gagatcatac        180
aaaagcatct gcttttgtga tttaatttag ctcatctggc cactggaaga atccaaacag        240
```

94

```
tctgccttaa ttttggatga atgcatgatg gaaattcaat aatttagaaa gttaaaaaaa      300
a                                                                      301
```

        <210> 289
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 289
```
ggtacactgt ttccatgtta tgtttctaca cattgctacc tcagtgctcc tggaaactta       60
gcttttgatg tctccaagta gtccaccttc atttaactct ttgaaactgt atcatctttg      120
ccaagtaaga gtggtggcct atttcagctg ctttgacaaa atgactggct cctgacttaa      180
cgttctataa atgaatgtgc tgaagcaaag tgcccatggt ggcggcgaan aagagaaaga      240
tgtgtttgt tttggactct ctgtggtccc ttccaatgct gtgggtttcc aaccagngga      300
a                                                                      301
```

        <210> 290
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 290
```
acactgagct cttcttgata aatatacaga atgcttggca tatacaagat tctatactac       60
tgactgatct gttcatttct ctcacagctc ttaccccccaa aagctttcc accctaagtg      120
ttctgacctc cttttctaat cacagtaggg atagaggcag anccacctac aatgaacatg      180
gagttctatc aagaggcaga aacagcacag aatcccagtt ttaccattcg ctagcagtgc      240
tgccttgaac aaaaacattt ctccatgtct cattttcttc atgcctcaag taacagtgag      300
a                                                                      301
```

        <210> 291
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 291
```
caggtaccaa tttcttctat cctagaaaca tttcatttta tgttgttgaa acataacaac       60
tatatcagct agatttttt tctatgcttt acctgctatg gaaaatttga cacattctgc      120
tttactcttt tgtttatagg tgaatcacaa aatgtatttt tatgtattct gtagttcaat      180
agccatggct gtttacttca tttaatttat ttagcataaa gacattatga aaaggcctaa      240
acatgagctt cacttcccca ctaactaatt agcatctgtt atttcttaac cgtaatgcct      300
a                                                                      301
```

        <210> 292
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>

95

```
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 292
acctttttagt agtaatgtct .aataataaat aagaaatcaa ttttttataagg tccatatagc      60
tgtattaaat aattttttaag tttaaaaagat aaaataccat cattttttaaat gttggtattc      120
aaaaccaaag natataaccg aaaggaaaaa cagatgagac ataaaatgat ttgcnagatg          180
ggaaatatag tasttyatga atgttnatta aattccagtt ataatagtgg ctacacactc         240
tcactacaca cacagacccc acagtcctat atgccacaaa cacatttcca taacttgaaa         300
a                                                                          301

        <210> 293
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 293
ggtaccaagt gctggtgcca gcctgttacc tgttctcact gaaaagtctg gctaatgctc          60
ttgtgtagtc acttctgatt ctgacaatca atcaatcaat ggcctagagc actgactgtt         120
aacacaaacg tcactagcaa agtagcaaca gctttaagtc taaatacaaa gctgttctgt         180
gtgagaattt tttaaaaggc tacttgtata ataacccttg tcatttttaa tgtacctcgg         240
ccgcgaccac gctaagccga attctgcaga tatccatcac actggcggcc gctcgagcat         300
g                                                                          301

        <210> 294
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 294
tgacccataa caatatacac tagctatctt tttaactgtc catcattagc accaatgaag          60
attcaataaa attaccttta ttcacacatc tcaaaacaat tctgcaaatt cttagtgaag         120
tttaactata gtcacaganc ttaaatattc acattgtttt ctatgtctac tgaaaataag         180
ttcactactt ttctgggata ttctttacaa aatcttatta aaattcctgg tattatcacc         240
cccaattata cagtagcaca accaccttat gtagttttta catgatagct ctgtagaggt         300
t                                                                          301

        <210> 295
        <211> 305
        <212> DNA
        <213> Homo sapien

        <400> 295
gtactctttc tctcccctcc tctgaattta attctttcaa cttgcaattt gcaaggatta          60
cacatttcac tgtgatgtat attgtgttgc aaaaaaaaaa gtgtctttgt ttaaaattac         120
ttggtttgtg aatccatctt gctttttccc cattggaact agtcattaac ccatctctga         180
actggtagaa aaacrtctga agagctagtc tatcagcatc tgacaggtga attggatggt         240
tctcagaacc atttcaccca gacagcctgt ttctatcctg tttaataaat tagtttgggt         300
tctct                                                                      305

        <210> 296
        <211> 301
```

96

```
        <212> DNA
        <213> Homo sapien

        <400> 296
aggtactatg ggaagctgct aaaataatat ttgatagtaa aagtatgtaa tgtgctatct        60
cacctagtag taaactaaaa ataaactgaa actttatgga atctgaagtt attttccttg        120
attaaataga attaataaac caatatgagg aaacatgaaa ccatgcaatc tactatcaac        180
tttgaaaaag tgattgaacg aaccacttag ctttcagatg atgaacactg ataagtcatt        240
tgtcattact ataaatttta aaatctgtta ataagatggc ctatagggag gaaaaagggg        300
c                                                                        301

        <210> 297
        <211> 300
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(300)
        <223> n = A,T,C or G

        <400> 297
actgagtttt aactggacgc caagcaggca aggctggaag gttttgctct ctttgtgcta        60
aaggttttga aaaccttgaa ggagaatcat tttgacaaga agtacttaag agtctagaga        120
acaaagangt gaaccagctg aaagctctcg ggggaanctt acatgtgttg ttaggcctgt        180
tccatcattg ggagtgcact ggccatccct caaaatttgt ctgggctggc ctgagtggtc        240
accgcacctc ggccgcgacc acgctaagcc gaattctgca gatatccatc acactggcgg        300

        <210> 298
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 298
tatggggttt gtcacccaaa agctgatgct gagaaaggcc tccctggggc ccctcccgcg        60
ggcatctgag agacctggtg ttccagtgtt tctggaaatg ggtcccagtg ccgccggctg        120
tgaagctctc agatcaatca cgggaagggc ctggcggtgg tggccacctg gaaccaccct        180
gtcctgtctg tttacatttc actaycaggt tttctctggg cattacnatt tgttcccctg        240
caacagtgac ctgtgcattc tgctgtggcc tgctgtgtct gcaggtggct ctcagcgagg        300
t                                                                        301

        <210> 299
        <211> 301
        <212> DNA
        <213> Homo sapien

        <400> 299
gttttgagac ggagtttcac tcttgttgcc cagactggac tgcaatggca gggtctctgc        60
tcactgcacc ctctgcctcc caggttcgag caattctcct gcctcagcct cccaggtagc        120
tgggattgca ggctcacgcc accataccca gctaattttt ttgtattttt agtagagacg        180
gagtttcgcc atgttggcca gctggtctca aactcctgac ctcaagcgac ctgcctgcct        240
cggcctccca aagtgctgga attataggca tgagtcaaca cgcccagcct aaagatattt        300
t                                                                        301
```

97

```
<210> 300
<211> 301
<212> DNA
<213> Homo sapien

<400> 300
attcagtttt atttgctgcc ccagtatctg taaccaggag tgccacaaaa tcttgccaga      60
tatgtcccac acccactggg aaaggctccc acctggctac ttcctctatc agctgggtca     120
gctgcattcc acaaggttct cagcctaatg agtttcacta cctgccagtc tcaaaactta     180
gtaaagcaag accatgacat tcccccacgg aaatcagagt ttgccccacc gtcttgttac     240
tataaagcct gcctctaaca gtccttgctt cttcacacca atcccgagcg catcccccat     300
g                                                                      301

<210> 301
<211> 301
<212> DNA
<213> Homo sapien

<400> 301
ttaaattttt gagaggataa aaaggacaaa taatctagaa atgtgtcttc ttcagtctgc      60
agaggacccc aggtctccaa gcaaccacat ggtcaagggc atgaataatt aaaagttggt     120
gggaactcac aaagaccctc agagctgaga cacccacaac agtgggagct cacaaagacc     180
ctcagagctg agacacccac aacagtggga gctcacaaag accctcagag ctgagacacc     240
cacaacagca cctcgttcag ctgccacatg tgtgaataag gatgcaatgt ccagaagtgt     300
t                                                                      301

<210> 302
<211> 301
<212> DNA
<213> Homo sapien

<400> 302
aggtacacat ttagcttgtg gtaaatgact cacaaaactg attttaaaat caagttaatg      60
tgaattttga aaattactac ttaatcctaa ttcacaataa caatggcatt aaggtttgac     120
ttgagttggt tcttagtatt atttatggta aataggctct taccacttgc aaataactgg     180
ccacatcatt aatgactgac ttcccagtaa ggctctctaa ggggtaagta ggaggatcca     240
caggatttga gatgctaagg ccccagagat cgtttgatcc aaccctctta ttttcagagg     300
g                                                                      301

<210> 303
<211> 301
<212> DNA
<213> Homo sapien

<400> 303
aggtaccaac tgtggaaata ggtagaggat catttttct ttccatatca actaagttgt       60
atattgtttt ttgacagttt aacacatctt cttctgtcag agattctttc acaatagcac     120
tggctaatgg aactaccgct tgcatgttaa aaatggtggt ttgtgaaatg atcataggcc     180
agtaacgggt atgtttttct aactgatctt ttgctcgttc caaagggacc tcaagacttc     240
catcgatttt atatctgggg tctagaaaag gagttaatct gttttccctc ataaattcac     300
c                                                                      301

<210> 304
<211> 301
<212> DNA
<213> Homo sapien
```

```
        <400> 304
acatggatgt tattttgcag actgtcaacc tgaatttgta tttgcttgac attgcctaat      60
tattagtttc agtttcagct tacccacttt ttgtctgcaa catgcaraas agacagtgcc     120
ctttttagtg tatcatatca ggaatcatct cacattggtt tgtgccatta ctggtgcagt     180
gactttcagc cacttgggta aggtggagtt ggccatatgt ctccactgca aaattactga     240
ttttcctttt gtaattaata agtgtgtgtg tgaagattct ttgagatgag gtatatatct     300
c                                                                     301

        <210> 305
        <211> 301
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(301)
        <223> n = A,T,C or G

        <400> 305
gangtacagc gtggtcaagg taacaagaag aaaaaaatgt gagtggcatc ctgggatgag      60
caggggggaca gacctggaca gacacgttgt catttgctgc tgtgggtagg aaaatgggcg    120
taaaggagga gaaacagata caaaatctcc aactcagtat taaggtattc tcatgcctag     180
aatattggta gaaacaagaa tacattcata tggcaaataa ctaaccatgg tggaacaaaa     240
ttctgggatt taagttggat accaangaaa ttgtattaaa agagctgttc atggaataag     300
a                                                                     301

        <210> 306
        <211> 8
        <212> PRT
        <213> Homo sapien

        <400> 306
Val Leu Gly Trp Val Ala Glu Leu
 1               5

        <210> 307
        <211> 637
        <212> DNA
        <213> Homo sapien

        <400> 307
acagggratg aagggaaagg gagaggatga ggaagccccc ctggggattt ggtttggtcc      60
ttgtgatcag gtggtctatg gggcttatcc ctacaaagaa gaatccagaa ataggggcac     120
attgaggaat gatacttgag cccaaagagc attcaatcat tgttttattt gccttmtttt     180
cacaccattg gtgagggagg gattaccacc ctggggttat gaagatggtt gaacacccca     240
cacatagcac cggagatatg agatcaacag tttcttagcc atagagattc acagcccaga     300
gcaggaggac gcttgcacac catgcaggat gacatggggg atgcgctcgg gattggtgtg     360
aagaagcaag gactgttaga ggcaggcttt atagtaacaa gacggtgggg caaactctga     420
tttccgtggg ggaatgtcat ggtcttgctt tactaagttt tgagactggc aggtagtgaa     480
actcattagg ctgagaacct tgtggaatgc acttgaccca sctgatagag gaagtagcca     540
ggtgggagcc tttcccagtg ggtgtgggac atatctggca agattttgtg gcactcctgg     600
ttacagatac tggggcagca aataaaactg aatcttg                             637

        <210> 308
        <211> 647
        <212> DNA
        <213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(647)
<223> n = A,T,C or G

<400> 308
acgattttca ttatcatgta aatcgggtca ctcaaggggc caaccacagc tgggagccac      60
tgctcagggg aaggttcata tgggactttc tactgcccaa ggttctatac aggatataaa     120
ggngcctcac agtatagatc tggtagcaaa gaagaagaaa caaacactga tctctttctg     180
ccacccctct gaccctttgg aactcctctg accctttaga acaagcctac ctaatatctg     240
ctagagaaaa gaccaacaac ggcctcaaag gatctcttac catgaaggtc tcagctaatt     300
cttggctaag atgtgggttc cacattaggt tctgaatatg gggggaaggg tcaatttgct     360
cattttgtgt gtggataaag tcaggatgcc caggggccag agcagggggc tgcttgcttt     420
gggaacaatg gctgagcata taaccatagg ttatggggaa caaaacaaca tcaaagtcac     480
tgtatcaatt gccatgaaga cttgagggac ctgaatctac cgattcatct taaggcagca     540
ggaccagttt gagtggcaac aatgcagcag cagaatcaat ggaaacaaca gaatgattgc     600
aatgtccttt tttttctcct gcttctgact tgataaaagg ggaccgt               647

<210> 309
<211> 460
<212> DNA
<213> Homo sapien

<400> 309
actttatagt ttaggctgga cattggaaaa aaaaaaaagc cagaacaaca tgtgatagat      60
aatatgattg gctgcacact tccagactga tgaatgatga acgtgatgga ctattgtatg     120
gagcacatct tcagcaagag ggggaaatac tcatcatttt tggccagcag ttgtttgatc     180
accaaacatc atgccagaat actcagcaaa ccttcttagc tcttgagaag tcaaagtccg     240
ggggaattta ttcctggcaa ttttaattgg actccttatg tgagagcagc ggctacccag     300
ctggggtggt ggagcgaacc cgtcactagt ggacatgcag tggcagagct cctggtaacc     360
acctagagga atacacaggc acatgtgtga tgccaagcgt gacacctgta gcactcaaat     420
ttgtcttgtt tttgtctttc ggtgtgtaag attcttaagt                         460

<210> 310
<211> 539
<212> DNA
<213> Homo sapien

<400> 310
acgggactta tcaaataaag ataggaaaag aagaaaactc aaatattata ggcagaaatg      60
ctaaaggttt taaaatatgt caggattgga agaaggcatg gataaagaac aaagttcagt     120
taggaaagag aaacacagaa ggaagagaca caataaaagt cattatgtat tctgtgagaa     180
gtcagacagt aagatttgtg ggaaatgggt tggtttgttg tatggtatgt attttagcaa     240
taatctttat ggcagagaaa gctaaaatcc tttagcttgc gtgaatgatc acttgctgaa     300
ttcctcaagg taggcatgat gaaggagggt ttagaggaga cacagacaca atgaactgac     360
ctagatagaa agccttagta tactcagcta ggaatagtga ttctgagggc acactgtgac     420
atgattatgt cattacatgt atggtagtga tggggatgat aggaaggaag aacttatggc     480
atattttcac ccccacaaaa gtcagttaaa tattgggaca ctaaccatcc aggtcaaga      539

<210> 311
<211> 526
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(526)
<223> n = A,T,C or G
```

100

```
        <400> 311
caaatttgag ccaatgacat agaattttac aaatcaagaa gcttattctg gggccatttc          60
ttttgacgtt ttctctaaac tactaaagag gcattaatga tccataaatt atattatcta         120
catttacagc atttaaaatg tgttcagcat gaaatattag ctacagggga agctaaataa         180
attaaacatg gaataaagat ttgtccttaa atataatcta caagaagact ttgatatttg         240
tttttcacaa gtgaagcatt cttataaagt gtcataacct ttttggggaa actatgggaa         300
aaaatgggga aactctgaag ggttttaagt atcttacctg aagctacaga ctccataacc         360
tctctttaca gggagctcct gcagcccta cagaaatgag tggctgagat tcttgattgc          420
acagcaagag cttctcatct aaacccttc ccttttagt atctgtgtat caagtataaa          480
agttctataa actgtagtnt acttatttta atccccaaag cacagt                       526


        <210> 312
        <211> 500
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(500)
        <223> n = A,T,C or G

        <400> 312
cctctctctc cccaccccct gactctagag aactgggttt tctcccagta ctccagcaat          60
tcatttctga aagcagttga gccacttat tccaaagtac actgcagatg ttcaaactct          120
ccatttctct ttcccttcca cctgccagtt ttgctgactc tcaacttgtc atgagtgtaa         180
gcattaagga cattatgctt cttcgattct gaagacaggc cctgctcatg gatgactctg         240
gcttcttagg aaaatatttt tcttccaaaa tcagtaggaa atctaaactt atcccctctt         300
tgcagatgtc tagcagcttc agacatttgg ttaagaaccc atgggaaaaa aaaaaatcct         360
tgctaatgtg gtttcctttg taaaccanga ttcttatttg nctggtatag aatatcagct         420
ctgaacgtgt ggtaaagatt tttgtgtttg aatataggag aaatcagttt gctgaaaagt         480
tagtcttaat tatctcattgg                                                    500


        <210> 313
        <211> 718
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(718)
        <223> n = A,T,C or G

        <400> 313
ggagatttgt gtggtttgca gccgagggag accaggaaga tctgcatggt gggaaggacc          60
tgatgataca gaggtgagaa ataagaaagg ctgctgactt taccatctga ggccacacat         120
ctgctgaaat ggagataatt aacatcacta gaaacagcaa gatgacaata taatgtctaa         180
gtagtgacat gtttttgcac atttccagcc cttttaaata tccacacaca caggaagcac         240
aaaaggaagc acagagatcc ctgggagaaa tgcccggccg ccatcttggg tcatcgatga         300
gcctcgccct gtgcctgntc ccgcttgtga gggaaggaca ttagaaaatg aattgatgtg         360
ttccttaaag gatggcagga aaacagatcc tgttgtggat atttatttga acgggattac         420
agatttgaaa tgaagtcaca aagtgagcat taccaatgag aggaaaacag acgagaaaat         480
cttgatggtt cacaagacat gcaacaaaca aaatggaata ctgtgatgac acgagcagcc         540
aactggggag gagataccac ggggcagagg tcaggattct ggccctgctg cctaactgtg         600
cgttatacca atcatttcta tttctaccct caaacaagct gtngaatatc tgacttacgg         660
ttcttntggc ccacattttc atnatccacc ccntcntttt aannttantc caaantgt          718


        <210> 314
```

101

```
        <211> 358
        <212> DNA
        <213> Homo sapien

        <400> 314
gtttatttac attacagaaa aaacatcaag acaatgtata ctatttcaaa tatatccata      60
cataatcaaa tatagctgta gtacatgttt tcattggtgt agattaccac aaatgcaagg     120
caacatgtgt agatctcttg tcttattctt ttgtctataa tactgtattg tgtagtccaa     180
gctctcggta gtccagccac tgtgaaacat gctcccttta gattaacctc gtggacgctc     240
ttgttgtatt gctgaactgt agtgccctgt attttgcttc tgtctgtgaa ttctgttgct     300
tctggggcat ttccttgtga tgcagaggac caccacacag atgacagcaa tctgaatt       358

        <210> 315
        <211> 341
        <212> DNA
        <213> Homo sapien

        <400> 315
taccacctcc ccgctggcac tgatgagccg catcaccatg gtcaccagca ccatgaaggc      60
ataggtgatg atgaggacat ggaatgggcc cccaaggatg gtctgtccaa agaagcgagt     120
gacccccatt ctgaagatgt ctggaacctc taccagcagg atgatgatag ccccaatgac     180
agtcaccagc tccccgacca gccggatatc gtccttaggg gtcatgtagg cttcctgaag     240
tagcttctgc tgtaagaggg tgttgtcccg ggggctcgtg cggttattgg tcctgggctt     300
gagggggcgg tagatgcagc acatggtgaa gcagatgatg t                         341

        <210> 316
        <211> 151
        <212> DNA
        <213> Homo sapien

        <400> 316
agactgggca agactcttac gccccacact gcaatttggt cttgttgccg tatccatttta      60
tgtgggcctt tctcgagttt ctgattataa acaccactgg agcgatgtgt tgactggact     120
cattcaggga gctctggttg caatattagt t                                    151

        <210> 317
        <211> 151
        <212> DNA
        <213> Homo sapien

        <400> 317
agaactagtg gatcctaatg aaatacctga aacatatatt ggcatttatc aatggctcaa      60
atcttcattt atctctggcc ttaaccctgg ctcctgaggc tgcggccagc agatcccagg     120
ccagggctct gttcttgcca cacctgcttg a                                    151

        <210> 318
        <211> 151
        <212> DNA
        <213> Homo sapien

        <400> 318
actggtggga ggcgctgttt agttggctgt tttcagaggg gtctttcgga gggacctcct      60
gctgcaggct ggagtgtctt tattcctggc gggagaccgc acattccact gctgaggctg     120
tgggggcggt ttatcaggca gtgataaaca t                                    151

        <210> 319
        <211> 151
        <212> DNA
```

102

```
        <213> Homo sapien

        <400> 319
aactagtgga tccagagcta taggtacagt gtgatctcag ctttgcaaac acattttcta        60
catagatagt actaggtatt aatagatatg taaagaaaga aatcacacca ttaataatgg       120
taagattggg tttatgtgat tttagtgggt a                                      151

        <210> 320
        <211> 150
        <212> DNA
        <213> Homo sapien

        <400> 320
aactagtgga tccactagtc cagtgtggtg gaattccatt gtgttggggt tctagatcgc        60
gagcggctgc cctttttttt tttttttttg ggggggaatt tttttttttt aatagttatt       120
gagtgttcta cagcttacag taaataccat                                        150

        <210> 321
        <211> 151
        <212> DNA
        <213> Homo sapien

        <400> 321
agcaactttg tttttcatcc aggttatttt aggcttagga tttcctctca cactgcagtt        60
tagggtggca ttgtaaccag ctatggcata ggtgttaacc aaaggctgag taaacatggg       120
tgcctctgag aaatcaaagt cttcatacac t                                      151

        <210> 322
        <211> 151
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(151)
        <223> n = A,T,C or G

        <400> 322
atccagcatc ttctcctgtt tcttgccttc ctttttcttc ttcttasatt ctgcttgagg        60
tttgggcttg gtcagtttgc cacagggctt ggagatggtg acagtcttct ggcattcggc       120
attgtgcagg gctcgcttca nacttccagt t                                      151

        <210> 323
        <211> 151
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(151)
        <223> n = A,T,C or G

        <400> 323
tgaggacttg tkttcttttt ctttattttt aatcctctta ckttgtaaat atattgccta        60
nagactcant tactacccag tttgtggttt twtgggagaa atgtaactgg acagttagct       120
gttcaatyaa aaagacactt ancccatgtg g                                      151

        <210> 324
```

103

```
        <211> 461
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(461)
        <223> n = A,T,C or G

        <400> 324
acctgtgtgg aatttcagct ttcctcatgc aaaaggattt tgtatccccg gcctacttga        60
agaagtggtc agctaaagga atccaggttg ttggttggac tgttaatacc tttgatgaaa       120
agagttacta cgaatcccat cttggttcca gctatatcac tgacagcatg gtagaagact       180
gcgaacctca cttctagact ttcacggtgg gacgaaacgg gttcagaaac tgccaggggc       240
ctcatacagg gatatcaaaa taccctttgt gctacccagg ccctggggaa tcaggtgact       300
cacacaaatg caatagttgg tcactgcatt tttacctgaa ccaaagctaa acccggtgtt       360
gccaccatgc accatggcat gccagagttc aacactgttg ctcttgaaaa ttgggtctga       420
aaaaacgcac aagagcccct gccctgccct agctgangca c                          461

        <210> 325
        <211> 400
        <212> DNA
        <213> Homo sapien

        <400> 325
acactgtttc catgttatgt ttctacacat tgctacctca gtgctcctgg aaacttagct        60
tttgatgtct ccaagtagtc caccttcatt taactctttg aaactgtatc atctttgcca       120
agtaagagtg gtggcctatt tcagctgctt tgacaaaatg actggctcct gacttaacgt       180
tctataaatg aatgtgctga agcaaagtgc ccatggtggc ggcgaagaag agaaagatgt       240
gttttgtttt ggactctctg tggtcccttc caatgctgtg ggtttccaac caggggaagg       300
gtcccttttg cattgccaag tgccataacc atgagcacta cgctaccatg gttctgcctc       360
ctggccaagc aggctggttt gcaagaatga aatgaatgat                            400

        <210> 326
        <211> 1215
        <212> DNA
        <213> Homo sapien

        <400> 326
ggaggactgc agcccgcact cgcagccctg gcaggcggca ctggtcatgg aaaacgaatt        60
gttctgctcg ggcgtcctgg tgcatccgca gtgggtgctg tcagccgcac actgtttcca       120
gaactcctac accatcgggc tgggcctgca cagtcttgag gccgaccaag agccagggag       180
ccagatggtg gaggccagcc tctccgtacg gcacccagag tacaacagac ccttgctcgc       240
taacgacctc atgctcatca agttggacga atccgtgtcc gagtctgaca ccatccggag       300
catcagcatt gcttcgcagt gccctaccgc ggggaactct tgcctcgttt ctggctgggg       360
tctgctggcg aacggcagaa tgcctaccgt gctgcagtgc gtgaacgtgt cggtggtgtc       420
tgaggaggtc tgcagtaagc tctatgaccc gctgtaccac cccagcatgt tctgcgccgg       480
cggaggcaa gaccagaagg actcctgcaa cggtgactct gggggggcccc tgatctgcaa       540
cgggtacttg cagggccttg tgtctttcgg aaaagccccg tgtggccaag ttggcgtgcc       600
aggtgtctac accaacctct gcaaattcac tgagtggata gagaaaccg tccaggccag       660
ttaactctgg ggactgggaa cccatgaaat tgacccccaa atacatcctg cggaaggaat       720
tcaggaatat ctgttcccag cccctcctcc ctcaggccca ggagtccagg cccccagccc       780
ctcctccctc aaaccaaggg tacagatccc cagcccctcc tccctcagac ccaggagtcc       840
agaccccca gcccctcctc cctcagaccc aggagtccag ccccctcctcc ctcagaccca       900
ggagtccaga cccccagcc cctcctccct cagacccagg gtccaggcc cccaacccct       960
cctccctcag actcagaggt ccaagccccc aaccctcct tccccagacc cagaggtcca      1020
ggtcccagcc cctcctccct cagacccagc ggtccaatgc cacctagact ctccctgtac      1080
acagtgcccc cttgtggcac gttgacccaa ccttaccagt tggttttca tttttgtcc      1140
```

104

```
ctttcccta  gatccagaaa  taaagtctaa  gagaagcgca  aaaaaaaaaa  aaaaaaaaaa      1200
aaaaaaaaaa  aaaaa                                                          1215
```

```
        <210> 327
        <211> 220
        <212> PRT
        <213> Homo sapien

        <400> 327
Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu Val Met
1               5                   10                  15
Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln Trp Val
            20                  25                  30
Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu Gly
        35                  40                  45
Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met Val Glu
    50                  55                  60
Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu Leu Ala
65                  70                  75                  80
Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu Ser Asp
                85                  90                  95
Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala Gly Asn
            100                 105                 110
Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg Met Pro
        115                 120                 125
Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu Val Cys
        130                 135                 140
Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys Ala Gly
145                 150                 155                 160
Gly Gly Gln Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly Gly Pro
                165                 170                 175
Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly Lys Ala
            180                 185                 190
Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu Cys Lys
        195                 200                 205
Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
    210                 215                 220

        <210> 328
        <211> 234
        <212> DNA
        <213> Homo sapien

        <400> 328
cgctcgtctc  tggtagctgc  agccaaatca  taaacggcga  ggactgcagc  ccgcactcgc      60
agccctggca  ggcggcactg  gtcatggaaa  acgaattgtt  ctgctcgggc  gtcctggtgc      120
atccgcagtg  ggtgctgtca  gccacacact  gtttccagaa  ctcctacacc  atcgggctgg      180
gcctgcacag  tcttgaggcc  gaccaagagc  agggagcca  gatggtggag  gcca             234

        <210> 329
        <211> 77
        <212> PRT
        <213> Homo sapien

        <400> 329
Leu Val Ser Gly Ser Cys Ser Gln Ile Ile Asn Gly Glu Asp Cys Ser
1               5                   10                  15
Pro His Ser Gln Pro Trp Gln Ala Ala Leu Val Met Glu Asn Glu Leu
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```
                 20                    25                    30
Phe Cys Ser Gly Val Leu Val His Pro Gln Trp Val Leu Ser Ala Thr
            35                    40                    45
His Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu Gly Leu His Ser Leu
        50                    55                    60
Glu Ala Asp Gln Glu Pro Gly Ser Gln Met Val Glu Ala
65                     70                    75
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        <210> 330
        <211> 70
        <212> DNA
        <213> Homo sapien

        <400> 330
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gctgcagcca                                                             70

        <210> 331
        <211> 22
        <212> PRT
        <213> Homo sapien

        <400> 331
Gln His Asn Gly Pro Ile Pro Ser Leu Thr Pro Pro Ser Gly Ser Leu
 1               5                    10                    15
Val Ser Gly Ser Cys Ser
                20

        <210> 332
        <211> 2507
        <212> DNA
        <213> Homo sapien

        <400> 332
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tgcccttcct tctgtatatg gctgcgcccc aaatcaggaa aatgctgtcc agtggggtgt    120
gtacatcaac tgttcagctt cctgggaaag tagttgtggt cacaggagct aatacaggta    180
tcgggaagga gacagccaaa gagctggctc agagaggagc tcgagtatat ttagcttgcc    240
gggatgtgga aaagggggaa ttggtggcca aagagatcca gaccacgaca gggaaccagc    300
aggtgttggt gcggaaactg gacctgtctg atactaagtc tattcgagct tttgctaagg    360
gcttcttagc tgaggaaaag cacctccacg tttttgatca caatgcagga gtgatgatgt    420
gtccgtactc gaagacagca gatggctttg agatgcacat aggagtcaac cacttgggtc    480
acttcctcct aacccatctg ctgctagaga aactaaagga atcagcccca tcaaggatag    540
taaatgtgtc ttccctcgca catcacctgg aaggatcca cttccataac ctgcagggcg    600
agaaattcta caatgcaggc ctggcctact gtcacagcaa gctagccaac atcctcttca    660
cccaggaact ggcccggaga ctaaaaggct ctggcgttac gacgtattct gtacaccctg    720
gcacagtcca atctgaactg gttcggcact catctttcat gagatggatg tggtggcttt    780
tctcctttt catcaagact cctcagcagg gagcccagac cagcctgcac tgtgccttaa    840
cagaaggtct tgagattcta agtgggaatc atttcagtga ctgtcatgtg gcatgggtct    900
ctgcccaagc tcgtaatgag actatagcaa ggcggctgtg ggacgtcagt tgtgacctgc    960
tgggcctccc aatagactaa caggcagtgc cagttggacc caagagaaga ctgcagcaga   1020
ctacacagta cttcttgtca aaatgattct ccttcaaggt tttcaaaacc tttagcacaa   1080
agagagcaaa accttccagc cttgcctgct tggtgtccag ttaaaactca gtgtactgcc   1140
agattcgtct aaatgtctgt catgtccaga tttactttgc ttctgttact gccagagtta   1200
ctagagatat cataatagga taagaagacc ctcatatgac ctgcacagct cattttcctt   1260
ctgaaagaaa ctactaccta ggagaatcta agctatagca gggatgattt atgcaaattt   1320
gaactagctt ctttgttcac aattcagttc ctcccaacca accagtcttc acttcaagag   1380
ggccacactg caacctcagc ttaacatgaa taacaaagac tggctcagga gcagggcttg   1440
```

```
cccaggcatg gtggatcacc ggaggtcagt agttcaagac cagcctggcc aacatggtga    1500
aaccccacct ctactaaaaa ttgtgtatat ctttgtgtgt cttcctgttt atgtgtgcca    1560
agggagtatt ttcacaaagt tcaaaacagc cacaataatc agagatggag caaaccagtg    1620
ccatccagtc tttatgcaaa tgaaatgctg caaagggaag cagattctgt atatgttggt    1680
aactacccac caagagcaca tgggtagcag ggaagaagta aaaaaagaga aggagaatac    1740
tggaagataa tgcacaaaat gaagggacta gttaaggatt aactagccct ttaaggatta    1800
actagttaag gattaatagc aaaagayatt aaatatgcta acatagctat ggaggaattg    1860
agggcaagca cccaggactg atgaggtctt aacaaaaacc agtgtggcaa aaaaaaaaaa    1920
aaaaaaaaaa aaaatcccta aaaacaaaca aacaaaaaaa acaattcttc attcagaaaa    1980
attatcttag ggactgatat tggtaattat ggtcaattta ataatatttt ggggcatttc    2040
cttacattgt cttgacaaga ttaaaatgtc tgtgccaaaa ttttgtattt tatttggaga    2100
cttcttatca aaagtaatgc tgccaaagga agtctaagga attagtagtg ttcccatcac    2160
ttgtttggag tgtgctattc taaaagattt tgatttcctg gaatgacaat tatattttaa    2220
ctttggtggg ggaaagagtt ataggaccac agtcttcact tctgatactt gtaaattaat    2280
cttttattgc acttgtttttg accattaagc tatatgttta gaaatggtca ttttacggaa    2340
aaattagaaa aattctgata atagtgcaga ataaatgaat taatgtttta cttaatttat    2400
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aataaaaacg taagaattaa aagtttgatt acaaaaaaaa aaaaaaa                   2507
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        <210> 333
        <211> 3030
        <212> DNA
        <213> Homo sapien

        <400> 333
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ggagagcgag ctgggtgccc cctagattcc ccgcccccgc acctcatgag ccgaccctcg     120
gctccatgga gcccggcaat tatgccacct tggatggagc caaggatatc gaaggcttgc     180
tgggagcggg aggggggcgg aatctggtcg cccactcccc tctgaccagc cacccagcgg     240
cgcctacgct gatgcctgct gtcaactatg ccccccttgga tctgccaggc tcggcggagc     300
cgccaaagca atgccaccca tgccctgggg tgccccaggg gacgtcccca gctcccgtgc     360
cttatggtta ctttggaggc gggtactact cctgccgagt gtcccggagc tcgctgaaac     420
cctgtgccca ggcagccacc ctggccgcgt accccgcgga gactcccacg gccgggggaag     480
agtaccccag ycgcccccact gagtttgcct tctatccggg atatccggga acctaccagc     540
ctatggccag ttacctggac gtgtctgtgg tgcagactct gggtgctcct ggagaaccgc     600
gacatgactc cctgttgcct gtggacagtt accagtcttg ggctctcgct ggtggctgga     660
acagccagat gtgttgccag ggagaacaga acccaccagg tcccttttgg aaggcagcat     720
ttgcagactc cagcgggcag caccctcctg acgcctgcgc ctttcgtcgc ggccgcaaga     780
aacgcattcc gtacagcaag gggcagttgc gggagctgga gcgggagtat gcggctaaca     840
agttcatcac caaggacaag aggcgcaaga tctcggcagc caccagcctc tcggagcgcc     900
agattaccat ctggtttcag aaccgccggg tcaaagagaa gaaggttctc gccaaggtga     960
agaacagcgc tacccccttaa gagatctcct tgcctgggtg ggaggagcga aagtgggggt    1020
gtcctgggga gaccaggaac ctgccaagcc caggctgggg ccaaggactc tgctgagagg    1080
cccctagaga caacacccct cccaggccac tggctgctgg actgttcctc aggagcggcc    1140
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cccaaagaac ctggcccagt cataatcatt catcctgaca gtggcaataa tcacgataac    1260
cagtactagc tgccatgatc gttagcctca tattttctat ctagagctct gtagagcact    1320
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cagggaagct ttctctcaga ccccccttcca ttacacctct caccctggta acagcaggaa    1440
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tctcagctga cagctgggta ggtggacaat tgtagaggct gtctcttcct ccctccttgt    1560
ccaccccata gggtgtaccc actggtcttg gaagcaccca tccttaatac gatgattttt    1620
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agagatttga gaaagtgcct gggtaattca ccattaattt cctcccccaa actctctgag    1740
tcttcccctta atatttctgg tggttctgac caaagcaggt catggtttgt tgagcatttg    1800
ggatcccagt gaagtagatg tttgtagcct tgcatactta gcccttccca ggcacaaacg    1860
gagtggcaga gtggtgccaa ccctgttttc ccagtccacg tagacagatt cacagtgcgg    1920
aattctggaa gctggagaca gacgggctct ttgcagagcc gggactctga gagggacatg    1980
```

107

```
agggcctctg cctctgtgtt cattctctga tgtcctgtac ctgggctcag tgcccggtgg       2040
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tgggcctgtg gggaggggggc aagatagatg aggggggagcg gcatggtgcg gggtgacccc .    2820
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gtagagacct ttgggggtct ggaacctctg gactccccat gctctaactc ccacactctg       2940
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        <210> 334
        <211> 2417
        <212> DNA
        <213> Homo sapien

        <400> 334
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agtttacaaa tgaggaaaca ggtgcaaaaa ggttgttacc tgtcaaaggt cgtatgtggc       180
agagccaaga tttgagccca gttatgtctg atgaacttag cctatgctct ttaaacttct       240
gaatgctgac cattgaggat atctaaactt agatcaattg cattttccct ccaagactat       300
ttacttatca atacaataat accacctta ccaatctatt gttttgatac gagactcaaa        360
tatgccagat atatgtaaaa gcaacctaca agctctctaa tcatgctcac ctaaaagatt       420
cccgggatct aataggctca aagaaacttc ttctagaaat ataaaagaga aaattggatt       480
atgcaaaaat tcattattaa ttttttttcat ccatccttta attcagcaaa catttatctg      540
ttgttgactt tatgcagtat ggcctttaa ggattggggg acaggtgaag aacgggggtgc       600
cagaatgcat cctcctacta atgaggtcag tacacatttg cattttaaaa tgccctgtcc       660
agctgggcat ggtggatcat gcctgtaatc tcaacattgg aaggccaagg caggaggatt       720
gcttcagccc aggagttcaa gaccagcctg ggcaacatag aaagacccca tctctcaatc       780
aatcaatcaa tgccctgtct ttgaaaataa aactctttaa gaaaggttta atgggcaggg       840
tgtggtagct catgcctata atacagcact ttgggaggct gaggcaggag gatcactta       900
gcccagaagt tcaagaccag cctgggcaac aagtgacacc tcatctcaat ttttaataa        960
aatgaataca tacataagga aagataaaaa gaaaagttta atgaaagaat acagtataaa       1020
acaaatctct tggacctaaa agtatttttg ttcaagccaa atattgtgaa tcacctctct       1080
gtgttgagga tacagaatat ctaagcccag gaaactgagc agaaagttca tgtactaact       1140
aatcaacccg aggcaaggca aaatgagac taactaatca atccgaggca aggggcaaat        1200
tagacggaac ctgactctgg tctattaagc gacaacttc cctctgttgt attttttctt        1260
tattcaatgt aaaaggataa aaactctcta aaactaaaaa caatgtttgt caggagttac       1320
aaaccatgac caactaatta tgggggaatca taaaatatga ctgtatgaga tcttgatggt      1380
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cacagactgg gaggcttaag taacagaaat tcatttctca cagttctggg ggctggaagt       1560
ccacgatcaa ggtgcaggaa aggcaggctt cattctgagg cccctctctt ggctcacatg       1620
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acctgggcca ctttggccca ggcactgtgg ggtgggggggt tgtggctgct ctgctctgag      1800
tggccaagat aaagcaacag aaaaatgtcc aaagctgtgc agcaaagaca agccaccgaa       1860
cagggatctg ctcatcagtg tggggacctc caagtcggcc accctggagg caagcccca        1920
cagagcccat gcaaggtggc agcagcagaa gaagggaatt gtccctgtcc ttggcacatt       1980
```

108

```
cctcaccgac ctggtgatgc tggacactgc gatgaatggt aatgtggatg agaatatgat     2040
ggactcccag aaaaggagac ccagctgctc aggtggctgc aaatcattac agccttcatc     2100
ctggggagga actggggggcc tggttctggg tcagagagca gcccagtgag ggtgagagct     2160
acagcctgtc ctgccagctg gatccccagt cccggtcaac cagtaatcaa ggctgagcag     2220
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ggtactgaga caatattgtc ataaattcaa tgcgcccttg tatccctttt tcttttttat     2340
ctgtctacat ctataatcac tatgcatact agtctttgtt agtgtttcta ttcmacttaa     2400
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```

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        <210> 335
        <211> 2984
        <212> DNA
        <213> Homo sapien

        <400> 335
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cccgagctgc cttctcccac actcaggtga tcgagttgga gaggaagttc agccatcaga      180
agtacctgtc ggcccctgaa cgggcccacc tggccaagaa cctcaagctc acggagaccc      240
aagtgaagat atggttccag aacagacgct ataagactaa gcgaaagcag ctctcctcgg      300
agctgggaga cttggagaag cactcctctt tgccggccct gaaagaggag gccttctccc      360
gggcctccct ggtctccgtg tataacagct atccttacta cccatacctg tactgcgtgg      420
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aatgaaacaa cagagacagt gaaagttta ataacctaagt cattcccca gtgcatactg       660
taggtcattt tttttgcttc tggctacctg tttgaagggg agagagggaa aatcaagtgg      720
tattttccag cactttgtat gattttggat gagctgtaca cccaaggatt ctgttctgca      780
actccatcct cctgtgtcac tgaatatcaa ctctgaaaga gcaaacctaa caggagaaag      840
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```

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tgatgtatat tgtgttgcaa aaaaaaaaaa aagtgtcttt gtttaaaatt acttggtttg    2640
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aaaaacatct gaagagctag tctatcagca tctgacaggt gaattggatg gttctcagaa    2760
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tgcataacaa accctgctcc aatctgtcac ataaaagtct gtgacttgaa gtttagtcag    2880
caccccacc aaactttatt tttctatgtg ttttttgcaa catatgagtg ttttgaaaat    2940
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```

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        <210> 336
        <211> 147
        <212> PRT
        <213> Homo sapien

        <400> 336
Pro Ser Phe Pro Thr Leu Leu Ser Arg Arg His Leu Gly Ser Tyr Leu
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            20                  25                  30
Pro Lys Gln Pro Gln Lys Arg Ser Arg Ala Ala Phe Ser His Thr Gln
        35                  40                  45
Val Ile Glu Leu Glu Arg Lys Phe Ser His Gln Lys Tyr Leu Ser Ala
    50                  55                  60
Pro Glu Arg Ala His Leu Ala Lys Asn Leu Lys Leu Thr Glu Thr Gln
65                  70                  75                  80
Val Lys Ile Trp Phe Gln Asn Arg Arg Tyr Lys Thr Lys Arg Lys Gln
            85                  90                  95
Leu Ser Ser Glu Leu Gly Asp Leu Glu Lys His Ser Ser Leu Pro Ala
            100                 105                 110
Leu Lys Glu Glu Ala Phe Ser Arg Ala Ser Leu Val Ser Val Tyr Asn
        115                 120                 125
Ser Tyr Pro Tyr Tyr Pro Tyr Leu Tyr Cys Val Gly Ser Trp Ser Pro
    130                 135                 140
Ala Phe Trp
145
```

```
        <210> 337
        <211> 9
        <212> PRT
        <213> Homo sapien

        <400> 337
Ala Leu Thr Gly Phe Thr Phe Ser Ala
1               5
```

```
        <210> 338
        <211> 9
        <212> PRT
        <213> Homo sapien

        <400> 338
Leu Leu Ala Asn Asp Leu Met Leu Ile
1               5
```

```
        <210> 339
        <211> 318
        <212> PRT
        <213> Homo sapien
```

110

```
        <400> 339
Met Val Glu Leu Met Phe Pro Leu Leu Leu Leu Leu Leu Pro Phe Leu
1               5                   10                  15
Leu Tyr Met Ala Ala Pro Gln Ile Arg Lys Met Leu Ser Ser Gly Val
            20                  25                  30
Cys Thr Ser Thr Val Gln Leu Pro Gly Lys Val Val Val Val Thr Gly
            35                  40                  45
Ala Asn Thr Gly Ile Gly Lys Glu Thr Ala Lys Glu Leu Ala Gln Arg
    50                  55                  60
Gly Ala Arg Val Tyr Leu Ala Cys Arg Asp Val Glu Lys Gly Glu Leu
65                  70                  75                  80
Val Ala Lys Glu Ile Gln Thr Thr Thr Gly Asn Gln Gln Val Leu Val
                85                  90                  95
Arg Lys Leu Asp Leu Ser Asp Thr Lys Ser Ile Arg Ala Phe Ala Lys
            100                 105                 110
Gly Phe Leu Ala Glu Glu Lys His Leu His Val Leu Ile Asn Asn Ala
        115                 120                 125
Gly Val Met Met Cys Pro Tyr Ser Lys Thr Ala Asp Gly Phe Glu Met
    130                 135                 140
His Ile Gly Val Asn His Leu Gly His Phe Leu Leu Thr His Leu Leu
145                 150                 155                 160
Leu Glu Lys Leu Lys Glu Ser Ala Pro Ser Arg Ile Val Asn Val Ser
                165                 170                 175
Ser Leu Ala His His Leu Gly Arg Ile His Phe His Asn Leu Gln Gly
            180                 185                 190
Glu Lys Phe Tyr Asn Ala Gly Leu Ala Tyr Cys His Ser Lys Leu Ala
        195                 200                 205
Asn Ile Leu Phe Thr Gln Glu Leu Ala Arg Arg Leu Lys Gly Ser Gly
    210                 215                 220
Val Thr Thr Tyr Ser Val His Pro Gly Thr Val Gln Ser Glu Leu Val
225                 230                 235                 240
Arg His Ser Ser Phe Met Arg Trp Met Trp Trp Leu Phe Ser Phe Phe
                245                 250                 255
Ile Lys Thr Pro Gln Gln Gly Ala Gln Thr Ser Leu His Cys Ala Leu
                260                 265                 270
Thr Glu Gly Leu Glu Ile Leu Ser Gly Asn His Phe Ser Asp Cys His
        275                 280                 285
Val Ala Trp Val Ser Ala Gln Ala Arg Asn Glu Thr Ile Ala Arg Arg
    290                 295                 300
Leu Trp Asp Val Ser Cys Asp Leu Leu Gly Leu Pro Ile Asp
305                 310                 315
```

```
        <210> 340
        <211> 483
        <212> DNA
        <213> Homo sapien

        <400> 340
gccgaggtct gccttcacac ggaggacacg agactgcttc ctcaagggct cctgcctgcc        60
tggacactgg tgggaggcgc tgtttagttg gctgttttca gaggggtctt tcggagggac       120
ctcctgctgc aggctggagt gtctttattc ctggcgggag accgcacatt ccactgctga       180
ggttgtgggg gcggtttatc aggcagtgat aaacataaga tgtcatttcc ttgactccgg       240
ccttcaattt tctctttggc tgacgacgga gtccgtggtg tcccgatgta actgaccccct      300
gctccaaacg tgacatcact gatgctcttc tcgggggtgc tgatggcccg cttggtcacg       360
tgctcaatct cgccattcga ctcttgctcc aaactgtatg aagacacctg actgcacgtt       420
ttttctgggc ttccagaatt taaagtgaaa ggcagcactc ctaagctccg actccgatgc       480
ctg                                                                     483
```

111

```
<210> 341
<211> 344
<212> DNA
<213> Homo sapien

<400> 341
ctgctgctga gtcacagatt tcattataaa tagcctccct aaggaaaata cactgaatgc      60
tatttttact aaccattcta tttttataga aatagctgag agtttctaaa ccaactctct     120
gctgccttac aagtattaaa tattttactt ctttccataa agagtagctc aaaatatgca     180
attaatttaa taatttctga tgatggtttt atctgcagta atatgtatat catctattag     240
aatttactta atgaaaaact gaagagaaca aaatttgtaa ccactagcac ttaagtactc     300
ctgattctta acattgtctt taatgaccac aagacaacca acag                      344

<210> 342
<211> 592
<212> DNA
<213> Homo sapien

<400> 342
acagcaaaaa agaaactgag aagcccaaty tgctttcttg ttaacatcca cttatccaac      60
caatgtggaa acttcttata cttggttcca ttatgaagtt ggacaattgc tgctatcaca     120
cctggcaggt aaaccaatgc caagagagtg atggaaacca ttggcaagac tttgttgatg     180
accaggattg gaatttttata aaaatattgt tgatgggaag ttgctaaagg gtgaattact     240
tccctcagaa gagtgtaaag aaaagtcaga gatgctataa tagcagctat tttaattggc     300
aagtgccact gtggaaagag ttcctgtgtg tgctgaagtt ctgaagggca gtcaaattca     360
tcagcatggg ctgtttggtg caaatgcaaa agcacaggtc tttttagcat gctggtctct     420
cccgtgtcct tatgcaaata atcgtcttct tctaaatttc tcctaggctt cattttccaa     480
agttcttctt ggtttgtgat gtctttct ctttccatta attctataaa atagtatggc      540
ttcagccacc cactcttcgc cttagcttga ccgtgagtct cggctgccgc tg            592

<210> 343
<211> 382
<212> DNA
<213> Homo sapien

<400> 343
ttcttgacct cctcctcctt caagctcaaa caccacctcc cttattcagg accggcactt      60
cttaatgttt gtggctttct ctccagcctc tcttaggagg ggtaatggtg gagttggcat     120
cttgtaactc tcctttctcc tttcttcccc tttctctgcc cgcctttccc atcctgctgt     180
agacttcttg attgtcagtc tgtgtcacat ccagtgattg ttttggtttc tgttcccttt     240
ctgactgccc aagggctca gaaccccagc aatcccttcc tttcactacc ttcttttttg      300
ggggtagttg gaagggactg aaattgtggg gggaaggtag gaggcacatc aataaagagg     360
aaaccaccaa gctgaaaaaa aa                                              382

<210> 344
<211> 536
<212> DNA
<213> Homo sapien

<400> 344
ctgggcctga agctgtaggg taaatcagag gcaggcttct gagtgatgag agtcctgaga      60
caataggcca cataaacttg ctggatgga acctcacaat aaggtggtca cctcttgttt      120
gtttagggg atgccaagga taaggccagc tcagttatat gaagagaagc agaacaaaca     180
agtctttcag agaaatggat gcaatcagag tgggatcccg gtcacatcaa ggtcacactc     240
caccttcatg tgcctgaatg gttgccaggt cagaaaaatc caccccttac gagtgcggct     300
tcgaccctat atcccccgcc cgcgtccctt tctccataaa attcttctta gtagctatta     360
ccttcttatt atttgatcta gaaattgccc tcctttttacc cctaccatga gccctacaaa     420
```

112

```
caactaacct gccactaata gttatgtcat ccctcttatt aatcatcatc ctagccctaa      480
gtctggccta tgagtgacta caaaaaggat tagactgagc cgaataacaa aaaaaa         536


        <210> 345
        <211> 251
        <212> DNA
        <213> Homo sapien


        <400> 345
acctttttgag gtctctctca ccacctccac agccaccgtc accgtgggat gtgctggatg      60
tgaatgaagc ccccatcttt gtgcctcctg aaaagagagt ggaagtgtcc gaggactttg     120
gcgtgggcca ggaaatcaca tcctacactg cccaggagcc agacacattt atggaacaga     180
aaataacata tcggatttgg agagacactg ccaactggct ggagattaat ccggacactg     240
gtgccatttc c                                                          251


        <210> 346
        <211> 282
        <212> DNA
        <213> Homo sapien


        <220>
        <221> misc_feature
        <222> (1)...(282)
        <223> n = A,T,C or G


<400> 346
cgcgtctctg acactgtgat catgacaggg gttcaaacag aaagtgcctg ggccctcctt      60
ctaagtcttg ttaccaaaaa aaggaaaaag aaaagatctt ctcagttaca aattctggga     120
agggagacta tacctggctc ttgccctaag tgagaggtct tccctcccgc accaaaaaat     180
agaaaggctt tctatttcac tggcccaggt aggggggaagg agagtaactt tgagtctgtg     240
ggtctcattt cccaaggtgc cttcaatgct catnaaaacc aa                        282


        <210> 347
        <211> 201
        <212> DNA
        <213> Homo sapien


        <220>
        <221> misc_feature
        <222> (1)...(201)
        <223> n = A,T,C or G


        <400> 347
acacacataa tattataaaa tgccatctaa ttggaaggag ctttctatca ttgcaagtca      60
taaatataac tttttaaaana ntactancag cttttacctta ngctcctaaa tgcttgtaaa     120
tctgagactg actggacccca cccagacccca gggcaaagat acatgttacc atatcatctt     180
tataaagaat ttttttttgt c                                                201


        <210> 348
        <211> 251
        <212> DNA
        <213> Homo sapien


        <400> 348
ctgttaatca caacatttgt gcatcacttg tgccaagtga gaaaatgttc taaaatcaca      60
agagagaaca gtgccagaat gaaactgacc ctaagtccca ggtgcccctg ggcaggcaga     120
aggagacact cccagcatgg aggagggttt atcttttcat cctaggtcag gtctacaatg     180
ggggaaggtt ttattataga actcccaaca gcccacctca ctcctgccac ccacccgatg     240
```

113

```
gccctgcctc c                                                                 251

        <210> 349
        <211> 251
        <212> DNA
        <213> Homo sapien

        <400> 349
taaaaatcaa gccatttaat tgtatctttg aaggtaaaca atatatggga gctggatcac         60
aacccctgag gatgccagag ctatgggtcc agaacatggt gtggtattat caacagagtt        120
cagaagggtc tgaactctac gtgttaccag agaacataat gcaattcatg cattccactt        180
agcaattttg taaaatacca gaaacagacc ccaagagtct ttcaagatga ggaaaattca        240
actcctggtt t                                                              251

        <210> 350
        <211> 908
        <212> DNA
        <213> Homo sapien

        <400> 350
ctggacactt tgcgagggct tttgctggct gctgctgctg cccgtcatgc tactcatcgt         60
agcccgcccg gtgaagctcg ctgctttccc tacctcctta agtgactgcc aaacgcccac        120
cggctggaat tgctctggtt atgatgacag agaaaatgat ctcttcctct gtgacaccaa        180
cacctgtaaa tttgatgggg aatgtttaag aattggagac actgtgactt gcgtctgtca        240
gttcaagtgc aacaatgact atgtgcctgt gtgtggctcc aatggggaga gctaccagaa        300
tgagtgttac ctgcgacagg ctgcatgcaa acagcagagt gagatacttg tggtgtcaga        360
aggatcatgt gccacagtcc atgaaggctc tggagaaact agtcaaaagg agacatccac        420
ctgtgatatt tgccagtttg gtgcagaatg tgacgaagat gccgaggatg tctggtgtgt        480
gtgtaatatt gactgttctc aaaccaactt caatcccctc tgcgcttctg atgggaaatc        540
ttatgataat gcatgccaaa tcaaagaagc atcgtgtcag aaacaggaga aaattgaagt        600
catgtctttg ggtcgatgtc aagataacac aactacaact actaagtctg aagtgggca        660
ttatgcaaga acagattatg cagagaatgc taacaaatta gaagaaagtg ccagagaaca        720
ccacatacct tgtccggaac attacaatgg cttctgcatg catgggaagt gtgagcattc        780
tatcaatatg caggagccat cttgcaggtg tgatgctggt tatactggac aacactgtga        840
aaaaaaggac tacagtgttc tatacgttgt tcccggtcct gtacgatttc agtatgtctt        900
aatcgcag                                                                  908

        <210> 351
        <211> 472
        <212> DNA
        <213> Homo sapien

        <400> 351
ccagttattt gcaagtggta agagcctatt taccataaat aatactaaga accaactcaa         60
gtcaaacctt aatgccattg ttattgtgaa ttaggattaa gtagtaattt tcaaaattca        120
cattaacttg attttaaaat cagwtttgyg agtcatttac cacaagctaa atgtgtacac        180
tatgataaaa acaaccattg tattcctgtt tttctaaaca gtcctaattt ctaacactgt        240
atatatcctt cgacatcaat gaactttgtt ttcttttact ccagtaataa agtaggcaca        300
gatctgtcca caacaaactt gccctctcat gccttgcctc tcaccatgct ctgctccagg        360
tcagcccct tttggcctgt ttgttttgtc aaaaacctaa tctgcttctt gcttttcttg        420
gtaatatata tttagggaag atgttgcttt gcccacacac gaagcaaagt aa               472

        <210> 352
        <211> 251
        <212> DNA
        <213> Homo sapien

        <400> 352
```

114

```
ctcaaagcta atctctcggg aatcaaacca gaaaagggca aggatcttag gcatggtgga      60
tgtggataag gccaggtcaa tggctgcaag catgcagaga aagaggtaca tcggagcgtg     120
caggctgcgt tccgtcctta cgatgaagac cacgatgcag tttccaaaca ttgccactac     180
atacatggaa aggaggggga agccaacCca gaaatgggct ttctctaatc ctgggatacc     240
aataagcaca a                                                          251

        <210> 353
        <211> 436
        <212> DNA
        <213> Homo sapien

        <400> 353
tttttttttt tttttttttt tttttttacaa caatgcagtc atttatttat tgagtatgtg      60
cacattatgg tattattact atactgatta tatttatcat gtgacttcta attaraaaat     120
gtatccaaaa gcaaaacagc agatatacaa aattaaagag acagaagata gacattaaca     180
gataaggcaa cttatacatt gacaatccaa atccaataca tttaaacatt tgggaaatga     240
gggggacaaa tggaagccar atcaaatttg tgtaaaacta ttcagtatgt ttcccttgct     300
tcatgtctga raaggctctc ccttcaatgg ggatgacaaa ctccaaatgc cacacaaatg     360
ttaacagaat actagattca cactggaacg ggggtaaaga agaaattatt ttctataaaa     420
gggctcctaa tgtagt                                                     436

        <210> 354
        <211> 854
        <212> DNA
        <213> Homo sapien

        <400> 354
ccttttctag ttcaccagtt ttctgcaagg atgctggtta gggagtgtct gcaggaggag      60
caagtctgaa accaaatcta ggaaacatag gaaacgagcc aggcacaggg ctggtgggcc     120
atcagggacc accctttggg ttgatatttt gcttaatctg catcttttga gtaagatcat     180
ctggcagtag aagctgttct ccaggtacat ttctctagct catgtacaaa aacatcctga     240
aggactttgt caggtgcctt gctaaaagcc agatgcgttc ggcacttcct tggtctgagg     300
ttaattgcac acctacaggc actgggctca tgctttcaag tattttgtcc tcactttagg     360
gtgagtgaaa gatccccatt ataggagcac ttgggagaga tcatataaaa gctgactctt     420
gagtacatgc agtaatgggg tagatgtgtg tggtgtgtct tcattcctgc aagggtgctt     480
gttagggagt gtttccagga ggaacaagtc tgaaaccaat catgaaataa atggtaggtg     540
tgaactggaa aactaattca aaagagagat cgtgatatca gtgtggttga tacaccttgg     600
caatatggaa ggctctaatt tgcccatatt tgaaataata attcagcttt ttgtaataca     660
aaataacaaa ggattgagaa tcatggtgtc taatgtataa aagacccagg aaacataaat     720
atatcaactg cataaatgta aaatgcatgt gacccaagaa ggccccaaag tggcagacaa     780
cattgtaccc attttccctt ccaaaatgtg agcggcgggc ctgctgcttt caaggctgtc     840
acacgggatg tcag                                                      854

        <210> 355
        <211> 676
        <212> DNA
        <213> Homo sapien

        <400> 355
gaaattaagt atgagctaaa ttccctgtta aaacctctag gggtgacaga tctcttcaac      60
caggtcaaag ctgatctttc tggaatgtca ccaaccaagg cctatatttt atcaaaagcc     120
atccacaagt catacctgga tgtcagcgaa gagggcacgg aggcagcagc agccactggg     180
gacagcatcg ctgtaaaaag cctaccaatg agagctcagt tcaaggcgaa ccacccttc      240
ctgttcttta taaggcacac tcataccaac acgatcctat tctgtggcaa gcttgcctct     300
ccctaatcag atggggttga gtaaggctca gagttgcaga tgaggtgcag agacaatcct     360
gtgactttcc cacggccaaa aagctgttca cacctcacg acctctgtgc ctcagtttgc     420
tcatctgcaa aataggtcta ggatttcttc caaccatttc atgagttgtg aagctaaggc     480
tttgttaatc atggaaaaag gtagacttat gcagaaagcc tttctggctt tcttatctgt     540
```

115

```
ggtgtctcat ttgagtgctg tccagtgaca tgatcaagtc aatgagtaaa attttaaggg        600
attagatttt cttgacttgt atgtatctgt gagatcttga ataagtgacc tgacatctct        660
gcttaaagaa aaccag                                                         676
```

```
        <210> 356
        <211> 574
        <212> DNA
        <213> Homo sapien

        <400> 356
tttttttttt ttttcagga aaacattctc ttactttatt tgcatctcag caaaggttct         60
catgtggcac ctgactggca tcaaaccaaa gttcgtaggc caacaaagat gggccactca        120
caagcttccc atttgtagat ctcagtgcct atgagtatct gacacctgtt cctctcttca        180
gtctcttagg gaggcttaaa tctgtctcag gtgtgctaag agtgccagcc caaggkggtc        240
aaaagtccac aaaactgcag tctttgctgg gatagtaagc caagcagtgc ctggacagca        300
gagttctttt cttgggcaac agataaccag acaggactct aatcgtgctc ttattcaaca        360
ttcttctgtc tctgcctaga ctggaataaa aagccaatc tctctcgtggc acaggaagg        420
agatacaagc tcgtttacat gtgatagatc taacaaaggc atctaccgaa gtctggtctg        480
gatagacggc acagggagct cttaggtcag cgctgctggt tggaggacat tcctgagtcc        540
agctttgcag cctttgtgca acagtacttt ccca                                    574
```

```
        <210> 357
        <211> 393
        <212> DNA
        <213> Homo sapien

        <400> 357
tttttttttt ttttttttttt ttttttttttt tacagaatat aratgcttta tcactgkact       60
taatatggkg kcttgttcac tatacttaaa aatgcaccac tcataaatat ttaattcagc        120
aagccacaac caaracttga ttttatcaac aaaaacccct aaatataaac ggsaaaaaag        180
atagatataa ttattccagt ttttttaaaa cttaaaaarat attccattgc cgaattaara        240
araarataag tgttatatgg aaagaagggc attcaagcac actaaaraaa cctgaggkaa        300
gcataatctg tacaaaatta aactgtcctt tttggcattt taacaaattt gcaacgktct        360
tttttttctt tttctgtttt ttttttttttt tac                                    393
```

```
        <210> 358
        <211> 630
        <212> DNA
        <213> Homo sapien

        <400> 358
acagggtaaa caggaggatc cttgctctca cggagcttac attctagcag gaggacaata        60
ttaatgttta taggaaaatg atgagtttat gacaaaggaa gtagatagta ttttacaaga        120
gcatagagta gggaagctaa tccagcacag ggaggtcaca gagacatccc taaggaagtg        180
gagtttaaac tgagagaagc aagtgcttaa actgaaggat gtgttgaaga agaagggaga        240
gtagaacaat ttgggcagag ggaaccttat agaccctaag gtgggaaggt tcaaagaact        300
gaaagagagc tagaacagct ggagccgttc tccggtgtaa agaggagtca aagagataag        360
attaaagatg tgaagattaa gatcttggtg gcattcaggg attggcactt ctacaagaaa        420
tcactgaagg gagtaatgtg acattacttt tcacttcagg atggccattc taactccagg        480
gggtagactg gactaggtaa gactggaggc aggtagacct cttctaaggc ctgcgatagt        540
gaaagacaaa aataagtggg gaaattcagg ggatagtgaa aatcagtagg acttaatgag        600
caagccagag gttcctccac aacaaccagt                                         630
```

```
        <210> 359
        <211> 620
        <212> DNA
        <213> Homo sapien
```

116

```
<400> 359
acagcattcc aaaatataca tctagagact aarrgtaaat gctctatagt gaagaagtaa      60
taattaaaaa atgctactaa tatagaaaat ttataatcag aaaaataaat attcagggag     120
·ctcaccagaa gaataaagtg ctctgccagt tattaaagga ttactgctgg tgaattaaat     180
atggcattcc ccaagggaaa tagagagatt cttctggatt atgttcaata tttatttcac     240
aggattaact gttttaggaa cagatataaa gcttcgccac ggaagagatg gacaaagcac     300
aaagacaaca tgatacctta ggaagcaaca ctaccctttc aggcataaaa tttggagaaa     360
tgcaacatta tgcttcatga ataatatgta gaaagaaggt ctgatgaaaa tgacatcctt     420
aatgtaagat aactttataa gaattctggg tcaaataaaa ttctttgaag aaaacatcca     480
aatgtcattg acttatcaaa tactatcttg gcatataacc tatgaaggca aaactaaaca     540
aacaaaaagc tcacaccaaa caaaaccatc aacttatttt gtattctata acatacgaga     600
ctgtaaagat gtgacagtgt                                                 620

        <210> 360
        <211> 431
        <212> DNA
        <213> Homo sapien

        <400> 360
aaaaaaaaaa agccagaaca acatgtgata gataaatatga ttggctgcac acttccagac      60
tgatgaatga tgaacgtgat ggactattgt atggagcaca tcttcagcaa gagggggaaa     120
tactcatcat ttttggccag cagttgtttg atcaccaaac atcatgccag aatactcagc     180
aaaccttctt agctcttgag aagtcaaagt ccggggggaat ttattcctgg caattttaat     240
tggactcctt atgtgagagc agcggctacc cagctggggt ggtggagcga acccgtcact     300
agtggacatg cagtggcaga gctcctggta accacctaga ggaatacaca ggcacatgtg     360
tgatgccaag cgtgacacct gtagcactca aatttgtctt gtttttgtct ttcggtgtgt     420
agattcttag t                                                         431

        <210> 361
        <211> 351
        <212> DNA
        <213> Homo sapien

        <400> 361
acactgattt ccgatcaaaa gaatcatcat ctttaccttg acttttcagg gaattactga      60
actttcttct cagaagatag ggcacagcca ttgccttggc ctcacttgaa gggtctgcat     120
ttgggtcctc tggtctcttg ccaagtttcc cagccactcg agggagaaat atcgggaggt     180
ttgacttcct ccggggcttt cccgagggct tcaccgtgag ccctgcggcc ctcagggctg     240
caatcctgga ttcaatgtct gaaacctcgc tctctgcctg ctggacttct gaggccgtca     300
ctgccactct gtcctccagc.tctgacagct cctcatctgt ggtcctgttg t             351

        <210> 362
        <211> 463
        <212> DNA
        <213> Homo sapien

        <400> 362
.acttcatcag gccataatgg gtgcctcccg tgagaatcca agcacctttg gactgcgcga      60
tgtagatgag ccggctgaag atcttgcgca tgcgcggctt cagggcgaag ttcttggcgc     120
ccccggtcac agaaatgacc aggttgggtg ttttcaggt ccagtgctgg gtcagcagct     180
cgtaaaggat ttccgcgtcc gtgtcgcagg acagacgtat atacttccct ttcttcccca     240
gtgtctcaaa ctgaatatcc ccaaaggcgt cggtaggaaa ttccttggtg tgtttcttgt     300
agttccattt ctcactttgg ttgatctggg tgccttccat gtgctggctc tgggcatagc     360
cacacttgca cacattctcc ctgataagca cgatggtgtg gacaggaagg aaggatttca     420
ttgagcctgc ttatggaaac tggtattgtt agcttaaata gac                      463

        <210> 363
        <211> 653
```

117

```
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(653)
        <223> n = A,T,C or G

        <400> 363
acccccgagt ncctgnctgg catactgnga acgaccaacg acacacccaa gctcggcctc        60
ctcttggnga ttctgggtga catcttcatg aatggcaacc gtgccagwga ggctgtcctc       120
tgggaggcac tacgcaagat gggactgcgt cctggggtga gacatcctct ccttggagat       180
ctaacgaaac ttctcaccta tgagttgtaa agcagaaata cctgnactac agacgagtgc       240
ccaacagcaa ccccccggaa gtatgagttc ctctrggcc  tccgttccta ccatgagasc       300
tagcaagatg naagtgttga gantcattgc agaggttcag aaaagagacc cntcgtgact       360
ggtctgcaca gttcatggag gctgcagatg aggccttgga tgctctggat gctgctgcag       420
ctgaggccga agcccgggct gaagcaagaa cccgcatggg aattggagat gaggctgtgt       480
ntgggccctg gagctgggat gacattgagt ttgagctgct gacctgggat gaggaaggag       540
attttggaga tccntggtcc agaattccat ttaccttctg ggccagatac caccagaatg       600
cccgctccag attccctcag acctttgccg gtcccattat tggtcstggt ggt             653

        <210> 364
        <211> 401
        <212> DNA
        <213> Homo sapien

        <400> 364
actagaggaa agacgttaaa ccactctact accacttgtg gaactctcaa agggtaaatg        60
acaaagccaa tgaatgactc taaaaacaat atttacattt aatggtttgt agacaataaa       120
aaaacaaggt ggatagatct agaattgtaa cattttaaga aaaccatagc atttgacaga       180
tgagaaagct caattataga tgcaaagtta taactaaact actatagtag taaagaaata       240
catttcacac ccttcatata aattcactat cttggcttga ggcactccat aaaatgtatc       300
acgtgcatag taaatcttta tatttgctat ggcgttgcac tagaggactt ggactgcaac       360
aagtggatgc gcggaaaatg aaatcttctt caatagccca g                         401

        <210> 365
        <211> 356
        <212> DNA
        <213> Homo sapien

        <400> 365
ccagtgtcat atttgggctt aaaatttcaa gaagggcact tcaaatggct ttgcatttgc        60
atgtttcagt gctagagcgt aggaatagac cctggcgtcc actgtgagat gttcttcagc       120
taccagagca tcaagtctct gcagcaggtc attcttgggt aaagaaatga cttccacaaa       180
ctctccatcc cctggctttg gcttcggcct tgcgttttcg gcatcatctc cgttaatggt       240
gactgtcacg atgtgtatag tacagtttga caagcctggg tccatacaga ccgctggaga       300
acattcggca atgtcccctt tgtagccagt ttcttcttcg agctcccgga gagcag          356

        <210> 366
        <211> 1851
        <212> DNA
        <213> Homo sapien

        <400> 366
tcatcaccat tgccagcagc ggcaccgtta gtcaggtttt ctgggaatcc cacatgagta        60
cttccgtgtt cttcattctt cttcaatagc cataaatctt ctagctctgg ctggctgttt       120
tcacttcctt taagcctttg tgactcttcc tctgatgtca gctttaagtc ttgttctgga       180
ttgctgtttt cagaagagat ttttaacatc tgttttttctt tgtagtcaga aagtaactgg      240
```

118

```
caaattacat gatgatgact agaaacagca tactctctgg ccgtctttcc agatcttgag      300
aagatacatc aacattttgc tcaagtagag ggctgactat acttgctgat ccacaacata      360
cagcaagtat gagagcagtt cttccatatc tatccagcgc atttaaattc gcttttttct      420
tgattaaaaa tttcaccact tgctgttttt gctcatgtat accaagtagc agtggtgtga      480
ggccatgctt gttttttgat tcgatatcag caccgtataa gagcagtgct ttggccatta      540
atttatcttc attgtagaca gcatagtgta gagtggtatt tccatactca tctggaatat      600
ttggatcagt gccatgttcc agcaacatta acgcacattc atcttcctgg cattgtacgg      660
cctttgtcag agctgtcctc tttttgttgt caaggacatt aagttgacat cgtctgtcca      720
gcacgagttt tactacttct gaattcccat tggcagaggc cagatgtaga gcagtcctct      780
tttgcttgtc cctcttgttc acatccgtgt ccctgagcat gacgatgaga tcctttctgg      840
ggactttacc ccaccaggca gctctgtgga gcttgtccag atcttctcca tggacgtggt      900
acctgggatc catgaaggcg ctgtcatcgt agtctcccca agcgaccacg ttgctcttgc      960
cgctcccctg cagcagggga agcagtggca gcaccacttg cacctcttgc tcccaagcgt     1020
cttcacagag gagtcgttgt ggtctccaga agtgcccacg ttgctcttgc cgctcccct     1080
gtccatccag ggaggaagaa atgcaggaaa tgaaagatgc atgcacgatg gtatactcct     1140
cagccatcaa acttctggac agcaggtcac ttccagcaag gtggagaaag ctgtccaccc     1200
acagaggatg agatccagaa accacaatat ccattcacaa acaaacactt ttcagccaga     1260
cacaggtact gaaatcatgt catctgcggc aacatggtgg aacctaccca atcacacatc     1320
aagagatgaa gacactgcag tatatctgca caacgtaata ctcttcatcc ataacaaat     1380
aatataattt tcctctggag ccatatggat gaactatgaa ggaagaactc cccgaagaag     1440
ccagtcgcag agaagccaca ctgaagctct gtcctcagcc atcagcgcca cggacaggar     1500
tgtgtttctt ccccagtgat gcagcctcaa gttatcccga agctgccgca gcacacggtg     1560
gctcctgaga aacaccccag ctcttccggt ctaacacagg caagtcaata aatgtgataa     1620
tcacataaac agaattaaaa gcaaagtcac ataagcatct caacagacac agaaaaggca     1680
tttgacaaaa tccagcatcc ttgtatttat tgttgcagtt ctcagaggaa atgcttctaa     1740
cttttcccca tttagtatta tgttggctgg gggcttgtca taggtggttt ttattacttt     1800
aaggtatgtc ccttctatgc ctgttttgct gagggttttta attctcgtgc c            1851
```

```
         <210> 367
         <211> 668
         <212> DNA
         <213> Homo sapien

         <400> 367
cttgagcttc caaataygga agactggccc ttacacasgt caatgttaaa atgaatgcat       60
ttcagtattt tgaagataaa attrgtagat ctataccttg tttttttgatt cgatatcagc      120
accrtataag agcagtgctt tggccattaa tttatctttc attrtagaca gcrtagtgya      180
gagtggtatt tccatactca tctggaatat ttggatcagt gccatgttcc agcaacatta      240
acgcacattc atcttcctgg cattgtacgg cctgtcagta ttagacccaa aaacaaatta      300
catatcttag gaattcaaaa taacattcca cagctttcac caactagtta tatttaaagg      360
agaaaactca ttttttatgcc atgtattgaa atcaaaccca cctcatgctg atatagttgg      420
ctactgcata cctttatcag agctgtcctc tttttgttgt caaggacatt aagttgacat      480
cgtctgtcca gcaggagttt tactacttct gaattcccat tggcagaggc cagatgtaga      540
gcagtcctat gagagtgaga agactttta ggaaattgta gtgcactagc tacagccata      600
gcaatgattc atgtaactgc aaacactgaa tagcctgcta ttactctgcc ttcaaaaaaa      660
aaaaaaaa                                                             668
```

```
         <210> 368
         <211> 1512
         <212> DNA
         <213> Homo sapien

         <400> 368
gggtcgccca ggggsgcgt gggctttcct cgggtgggtg tgggtttttcc ctgggtgggg       60
tgggctgggc trgaatcccc tgctggggtt ggcaggtttt ggctgggatt gactttttytc      120
ttcaaacaga ttggaaaccc ggagttacct gctagttggt gaaactggtt ggtagacgcg      180
atctgttggc tactactggc ttctcctggc tgttaaaagc agatggtggt tgaggttgat      240
tccatgccgg ctgcttcttc tgtgaagaag ccatttggtc tcaggagcaa gatgggcaag      300
```

```
tggtgctgcc gttgcttccc ctgctgcagg gagagcggca agagcaacgt gggcacttct    360
ggagaccacg acgactctgc tatgaagaca ctcaggagca agatgggcaa gtggtgccgc    420
cactgcttcc cctgctgcag ggggagtggc aagagcaacg tgggcgcttc tggagaccac    480
gacgaytctg ctatgaagac actcaggaac aagatgggca agtggtgctg ccactgcttc    540
ccctgctgca gggggagcrg caagagcaag gtgggcgctt ggggagacta cgatgacagt    600
gccttcatgg agcccaggta ccacgtccgt ggagaagatc tggacaagct ccacagagct    660
gcctggtggg gtaaagtccc cagaaaggat ctcatcgtca tgctcaggga cactgacgtg    720
aacaagaagg acaagcaaaa gaggactgct ctacatctgg cctctgccaa tgggaattca    780
gaagtagtaa aactcstgct ggacagacga tgtcaactta atgtccttga caacaaaaag    840
aggacagctc tgayaaaggc cgtacaatgc caggaagatg aatgtgcgtt aatgttgctg    900
gaacatggca ctgatccaaa tattccagat gagtatggaa ataccactct rcactaygct    960
rtctayaatg aagataaatt aatggccaaa gcactgctct tatayggtgc tgatatcgaa   1020
tcaaaaaaca aggtatagat ctactaattt tatcttcaaa atactgaaat gcattcattt   1080
taacattgac gtgtgtaagg gccagtcttc cgtatttgga agctcaagca taacttgaat   1140
gaaaatattt tgaaatgacc taattatctm agactttatt ttaaatattg ttattttcaa   1200
agaagcatta gagggtacag ttttttttttt ttaaatgcac ttctggtaaa tacttttgtt   1260
gaaaacactg aatttgtaaa aggtaatact tactattttt caattttttcc ctcctaggat   1320
tttttttcccc taatgaatgt aagatggcaa aatttgccct gaaataggtt ttacatgaaa   1380
actccaagaa aagttaaaca tgtttcagtg aatagagatc ctgctccttt ggcaagttcc   1440
taaaaaacag taatagatac gaggtgatgc gcctgtcagt ggcaaggttt aagatatttc   1500
tgatctcgtg cc                                                        1512

        <210> 369
        <211> 1853
        <212> DNA
        <213> Homo sapien

        <400> 369
gggtcgcccca gggggsgcgt gggctttcct cgggtgggtg tgggttttcc ctgggtgggg    60
tgggctgggc trgaatcccc tgctggggtt ggcaggtttt ggctgggatt gacttttytc   120
ttcaaacaga ttggaaaccc ggagttacct gctagttggt gaaactggtt ggtagacgcg   180
atctgttggc tactactggc ttctcctggc tgttaaaagc agatggtggt tgaggttgat   240
tccatgccgg ctgcttcttc tgtgaagaag ccatttggtc tcaggagcaa gatgggcaag   300
tggtgctgcc gttgcttccc ctgctgcagg gagagcggca agagcaacgt gggcacttct   360
ggagaccacg acgactctgc tatgaagaca ctcaggagca agatgggcaa gtggtgccgc   420
cactgcttcc cctgctgcag ggggagtggc aagagcaacg tgggcgcttc tggagaccac   480
gacgaytctg ctatgaagac actcaggaac aagatgggca agtggtgctg ccactgcttc   540
ccctgctgca gggggagcrg caagagcaag gtgggcgctt ggggagacta cgatgacagy   600
gccttcatgg akcccaggta ccacgtccrt ggagaagatc tggacaagct ccacagagct   660
gcctggtggg gtaaagtccc cagaaaggat ctcatcgtca tgctcaggga cackgaygtg   720
aacaagargg acaagcaaaa gaggactgct ctacatctgg cctctgccaa tgggaattca   780
gaagtagtaa aactcstgct ggacagacga tgtcaactta atgtccttga caacaaaaag   840
aggacagctc tgayaaaggc cgtacaatgc caggaagatg aatgtgcgtt aatgttgctg   900
gaacatggca ctgatccaaa tattccagat gagtatggaa ataccactct rcactaygct   960
rtctayaatg aagataaatt aatggccaaa gcactgctct tatayggtgc tgatatcgaa   1020
tcaaaaaaca agcatggcct cacaccactg ytacttggtr tacatgagca aaaacagcaa   1080
gtsgtgaaat ttttaatyaa gaaaaaagcg aatttaaaat gcrctggata gatatggaag   1140
ractgctctc atacttgctg tatgttgtgg atcagcaagt atagtcagcc ytctacttga   1200
gcaaaatrtt gatgtatctt ctcaagatct ggaaagacgg ccagagagta tgctgtttct   1260
agtcatcatc atgtaatttg ccagttactt tctgactaca aagaaaaaca gatgttaaaa   1320
atctcttctg aaaacagcaa tccagaacaa gacttaaagc tgacatcaga ggaagagtca   1380
caaaggctta aaggaagtga aaacagccag ccagaggcat ggaaactttt aaatttaaac   1440
ttttggttta atgtttttttt tttttgcctt aataatatta gatagtccca aatgaaatwa   1500
cctatgagac taggctttga gaatcaatag attctttttt taagaatctt ttggctagga   1560
gcggtgtctc acgcctgtaa ttccagcacc ttgagaggct gaggtgggca gatcacgaga   1620
tcaggagatc gagaccatcc tggctaacac ggtgaaaccc catctctact aaaaatacaa   1680
aaacttagct gggtgtggtg gcgggtgcct gtagtcccag ctactcagga rgctgaggca   1740
ggagaatggc atgaacccgg gaggtggagg ttgcagtgag ccgagatccg ccactacact   1800
```

120

```
ccagcctggg tgacagagca agactctgtc tcaaaaaaaa aaaaaaaaaa aaa            1853
```

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        <210> 370
        <211> 2184
        <212> DNA
        <213> Homo sapien

        <400> 370
ggcacgagaa ttaaaaccct cagcaaaaca ggcatagaag ggacatacct taaagtaata        60
aaaaccacct atgacaagcc cacagccaac ataatactaa atggggaaaa gttagaagca       120
tttcctctga gaactgcaac aataaataca aggatgctgg attttgtcaa atgccttttc       180
tgtgtctgtt gagatgctta tgtgactttg cttttaattc tgtttatgtg attatcacat       240
ttattgactt gcctgtgtta gaccggaaga gctggggtgt ttctcaggag ccaccgtgtg       300
ctgcggcagc ttcgggataa cttgaggctg catcactggg gaagaaacac aytcctgtcc       360
gtggcgctga tggctgagga cagagcttca gtgtggcttc tctgcgactg gcttcttcgg       420
ggagttcttc cttcatagtt catccatatg gctccagagg aaaattatat tattttgtta       480
tggatgaaga gtattacgtt gtgcagatat actgcagtgt cttcatctct tgatgtgtga       540
ttgggtaggt tccaccatgt tgccgcagat gacatgattt cagtacctgt gtctggctga       600
aaagtgtttg tttgtgaatg gatattgtgg tttctggatc tcatcctctg tgggtggaca       660
gctttctcca ccttgctgga agtgacctgc tgtccagaag tttgatggct gaggagtata       720
ccatcgtgca tgcatctttc atttcctgca tttcttcctc cctggatgga caggggggagc       780
ggcaagagca acgtgggcac ttctggagac cacaacgact cctctgtgaa gacgcttggg       840
agcaagaggt gcaagtggtg ctgccactgc ttcccctgct gcaggggagc ggcaagagca       900
acgtggtcgc ttggggagac tacgatgaca gcgccttcat ggatcccagg taccacgtcc       960
atggagaaga tctggacaag ctccacagag ctgcctggtg gggtaaagtc cccagaaagg      1020
atctcatcgt catgctcagg gacacggatg tgaacaagag ggacaagcaa aagaggactg      1080
ctctacatct ggcctctgcc aatgggaatt cagaagtagt aaaactcgtg ctggacagac      1140
gatgtcaact taatgtcctt gacaacaaaa gaggacagc tctgacaaag gccgtacaat      1200
gccaggaaga tgaatgtgcg ttaatgttgc tggaacatgg cactgatcca aatattccag      1260
atgagtatgg aaataccact ctacactatg ctgtctacaa tgaagataaa ttaatggcca      1320
aagcactgct cttatacggt gctgatatcg aatcaaaaaa caagcatggc ctcacaccac      1380
tgctacttgg tatacatgag caaaaacagc aagtggtgaa attttttaatc aagaaaaaag      1440
cgaatttaaa tgcgctggat agatatggaa gaactgctct catacttgct gtatgttgtg      1500
gatcagcaag tatagtcagc cctctacttg agcaaaatgt tgatgtatct tctcaagatc      1560
tggaaagacg gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact      1620
ttctgactac aaagaaaaac agatgttaaa aatctcttct gaaaacagca atccagaaca      1680
agacttaaag ctgacatcag aggaagagtc acaaaggctt aaaggaagtg aaaacagcca      1740
gccagaggca tggaaacttt taaatttaaa cttttggttt aatgtttttt tttttgcct      1800
taataatatt agatagtccc aaatgaaatw acctatgaga ctaggctttg agaatcaata      1860
gattcttttt ttaagaatct tttggctagg agcggtgtct cacgcctgta attccagcac      1920
cttgagaggc tgaggtgggc agatcacgag atcaggagat cgagaccatc ctggctaaca      1980
cggtgaaacc ccatctctac taaaaataca aaaacttagc tgggtgtggt ggcgggtgcc      2040
tgtagtccca gctactcagg argctgaggc aggagaatgg catgaacccg ggaggtggag      2100
gttgcagtga ccgagatccg ccactacac tccagcctgg gtgacagagc aagactctgt      2160
ctcaaaaaaa aaaaaaaaaa aaaa                                             2184
```

```
        <210> 371
        <211> 1855
        <212> DNA
        <213> Homo sapien

        <220>
        <221> misc_feature
        <222> (1)...(1855)
        <223> n = A,T,C or G

        <400> 371
tgcacgcatc ggccagtgtc tgtgccacgt acactgacgc cccctgagat gtgcacgccg        60
```

```
cacgcgcacg ttgcacgcgc ggcagcggct tggctggctt gtaacggctt gcacgcgcac    120
gccgcccccg cataaccgtc agactggcct gtaacggctt gcaggcgcac gccgcacgcg    180
cgtaacggct tggctgccct gtaacggctt gcacgtgcat gctgcacgcg cgttaacggc    240
ttggctggca tgtagccgct tggcttggct ttgcattytt tgctkggctk ggcgttgkty    300
tcttggattg acgcttcctc cttggatkga cgtttcctcc ttggatkgac gtttcytyty    360
tcgcgttcct ttgctggact tgaccttttty tctgctgggt ttggcattcc tttggggtgg    420
gctgggtgtt ttctccgggg gggktkgccc ttcctggggt gggcgtgggk cgcccccagg    480
gggcgtgggc tttccccggg tgggtgtggg ttttcctggg gtggggtggg ctgtgctggg    540
atccccctgc tggggttggc agggattgac ttttttcttc aaacagattg gaaacccgga    600
gtaacntgct agttggtgaa actggttggt agacgcgatc tgctggtact actgtttctc    660
ctggctgtta aaagcagatg gtggctgagg ttgattcaat gccggctgct tcttctgtga    720
agaagccatt tggtctcagg agcaagatgg gcaagtggtg cgccactgct tcccctgctg    780
caggggggagc ggcaagagca acgtgggcac ttctggagac cacaacgact cctctgtgaa    840
gacgcttggg agcaagaggt gcaagtggtg ctgcccactg cttcccctgc tgcaggggag    900
cggcaagagc aacgtggkcg cttggggaga ctacgatgac agcgccttca tggakcccag    960
gtaccacgtc crtggagaag atctggacaa gctccacaga gctgcctggt ggggtaaagt   1020
ccccagaaag gatctcatcg tcatgctcag ggacactgay gtgaacaaga rggacaagca   1080
aaagaggact gctctacatc tggcctctgc caatgggaat tcagaagtag taaaactcgt   1140
gctggacaga cgatgtcaac ttaatgtcct tgacaacaaa aagaggacag ctctgacaaa   1200
ggccgtacaa tgccaggaag atgaatgtgc gttaatgttg ctggaacatg gcactgatcc   1260
aaatattcca gatgagtatg gaaataccac tctacactat gctgtctaca atgaagataa   1320
attaatggcc aaagcactgc tcttatacgg tgctgatatc gaatcaaaaa acaaggtata   1380
gatctactaa ttttatcttc aaaatactga aatgcattca ttttaacatt gacgtgtgta   1440
agggccagtc ttccgtattt ggaagctcaa gcataacttg aatgaaaata ttttgaaatg   1500
acctaattat ctaagacttt attttaaata ttgttatttt caaagaagca ttagagggta   1560
cagtttttttt tttttaaatg cacttctggt aaatactttt gttgaaaaca ctgaatttgt   1620
aaaaggtaat acttactatt tttcaatttt tccctcctag gatttttttc ccctaatgaa   1680
tgtaagatgg caaaatttgc cctgaaatag gttttacatg aaaactccaa gaaaagttaa   1740
acatgtttca gtgaatagag atcctgctcc tttggcaagt tcctaaaaaa cagtaataga   1800
tacgaggtga tgcgcctgtc agtggcaagg tttaagatat ttctgatctc gtgcc         1855
```

```
<210> 372
<211> 1059
<212> DNA
<213> Homo sapien

<400> 372
gcaacgtggg cacttctgga gaccacaacg actcctctgt gaagacgctt gggagcaaga     60
ggtgcaagtg gtgctgccca ctgcttcccc tgctgcaggg gagcggcaag agcaacgtgg    120
gcgcttgrgg agactmcgat gacagygcct tcatggagcc caggtaccac gtccgtggag    180
aagatctgga caagctccac agagctgccc tggtggggta aagtccccag aaaggatctc    240
atcgtcatgc tcagggacac tgaygtgaac aagarggaca agcaaaagag gactgctcta    300
catctggcct ctgccaatgg gaattcagaa gtagtaaaac tcstgctgga cagacgatgt    360
caacttaatg tccttgacaa caaaaagagg acagctctga yaaaggccgt acaatgccag    420
gaagatgaat gtgcgttaat gttgctggaa catggcactg atccaaatat tccagatgag    480
tatggaaata ccactctrca ctaygctrtc tayaatgaag ataaattaat ggccaaagca    540
ctgctcttat ayggtgctga tatcgaatca aaaaacaagg tatagatcta ctaattttat    600
cttca̅aaata ctgaaatgca ttcattttaa cattgacgtg tgtaagggcc agtcttccgt    660
atttggaagc tcaagcataa cttgaatgaa aatattttga aatgacctaa ttatctaaga    720
ctttatttta aatattgtta ttttcaaaga agcattagag ggtacagttt ttttttttta    780
aatgcacttc tggtaaatac ttttgttgaa aacactgaat ttgtaaaagg taatacttac    840
tattttttcaa ttttttccctc ctaggatttt tttcccctaa tgaatgtaag atggcaaaat    900
ttgccctgaa ataggtttta catgaaaact ccaagaaaag ttaaacatgt ttcagtgaat    960
agagatcctg ctcctttggc aagttcctaa aaaacagtaa tagatacgag gtgatgcgcc   1020
tgtcagtggc aaggtttaag atatttctga tctcgtgcc                           1059
```

```
<210> 373
<211> 1155
```

122

```
        <212> DNA
        <213> Homo sapien

        <400> 373
atggtggttg aggttgattc catgccggct gcctcttctg tgaagaagcc atttggtctc          60
aggagcaaga tgggcaagtg gtgctgccgt tgcttcccct gctgcaggga gagcggcaag         120
agcaacgtgg gcacttctgg agaccacgac gactctgcta tgaagacact caggagcaag         180
atgggcaagt ggtgccgcca ctgcttcccc tgctgcaggg ggagtggcaa gagcaacgtg         240
ggcgcttctg gagaccacga cgactctgct atgaagacac tcaggaacaa gatgggcaag         300
tggtgctgcc actgcttccc ctgctgcagg gggagcggca gagcaaggt gggcgcttgg         360
ggagactacg atgacagtgc cttcatggag cccaggtacc acgtccgtgg agaagatctg         420
gacaagctcc acagagctgc ctggtggggt aaagtcccca gaaaggatct catcgtcatg         480
ctcagggaca ctgacgtgaa caagaaggac aagcaaaaga ggactgctct acatctggcc         540
tctgccaatg ggaattcaga agtagtaaaa ctcctgctgg acagacgatg tcaacttaat         600
gtccttgaca acaaaaagag gacagctctg ataaaggccg tacaatgcca ggaagatgaa         660
tgtgcgttaa tgttgctgga acatggcact gatccaaata ttccagatga gtatggaaat         720
accactctgc actacgctat ctataatgaa gataaattaa tggccaaagc actgctctta         780
tatggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttggtgta         840
catgagcaaa aacagcaagt cgtgaaattt ttaatcaaga aaaaagcgaa tttaaatgca         900
ctggatagat atggaaggac tgctctcata cttgctgtat gttgtggatc agcaagtata         960
gtcagccttc tacttgagca aaatattgat gtatcttctc aagatctatc tggacagacg        1020
gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact ttctgactac        1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga        1140
accagaaata aataa                                                         1155

        <210> 374
        <211> 2000
        <212> DNA
        <213> Homo sapien

        <400> 374
atggtggttg aggttgattc catgccggct gcctcttctg tgaagaagcc atttggtctc          60
aggagcaaga tgggcaagtg gtgctgccgt tgcttcccct gctgcaggga gagcggcaag         120
agcaacgtgg gcacttctgg agaccacgac gactctgcta tgaagacact caggagcaag         180
atgggcaagt ggtgccgcca ctgcttcccc tgctgcaggg ggagtggcaa gagcaacgtg         240
ggcgcttctg gagaccacga cgactctgct atgaagacac tcaggaacaa gatgggcaag         300
tggtgctgcc actgcttccc ctgctgcagg gggagcggca gagcaaggt gggcgcttgg         360
ggagactacg atgacagtgc cttcatggag cccaggtacc acgtccgtgg agaagatctg         420
gacaagctcc acagagctgc ctggtggggt aaagtcccca gaaaggatct catcgtcatg         480
ctcagggaca ctgacgtgaa caagaaggac aagcaaaaga ggactgctct acatctggcc         540
tctgccaatg ggaattcaga agtagtaaaa ctcctgctgg acagacgatg tcaacttaat         600
gtccttgaca acaaaaagag gacagctctg ataaaggccg tacaatgcca ggaagatgaa         660
tgtgcgttaa tgttgctgga acatggcact gatccaaata ttccagatga gtatggaaat         720
accactctgc actacgctat ctataatgaa gataaattaa tggccaaagc actgctctta         780
tatggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttggtgta         840
catgagcaaa aacagcaagt cgtgaaattt ttaatcaaga aaaaagcgaa tttaaatgca         900
ctggatagat atggaaggac tgctctcata cttgctgtat gttgtggatc agcaagtata         960
gtcagccttc tacttgagca aaatattgat gtatcttctc aagatctatc tggacagacg        1020
gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact ttctgactac        1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaca agacttaaag        1140
ctgacatcag aggaagagtc acaaaggttc aaaggcagtg aaaatagcca gccagagaaa        1200
atgtctcaag aaccagaaat aaataaggat ggtgatagag aggttgaaga agaaatgaag        1260
aagcatgaaa gtaataatgt gggattacta gaaaacctga ctaatggtgt cactgctggc        1320
aatggtgata atggattaat tcctcaaagg aagagcagaa cacctgaaaa tcagcaattt        1380
cctgacaacg aaagtgaaga gtatcacaga atttgcgaat tagtttctga ctacaaagaa        1440
aaacagatgc caaatactc ttctgaaaac agcaacccag aacaagactt aaagctgaca        1500
tcagaggaag agtcacaaag gcttgagggc agtgaaaatg ccagccaga gctagaaaat        1560
tttatggcta tcgaagaaat gaagaagcac ggaagtactc atgtcggatt cccagaaaac        1620
```

123

```
ctgactaatg gtgccactgc tggcaatggt gatgatggat taattcctcc aaggaagagc    1680
agaacacctg aaagccagca atttcctgac actgagaatg aagagtatca cagtgacgaa    1740
caaaatgata ctcagaagca attttgtgaa gaacagaaca ctggaatatt acacgatgag    1800
attctgattc atgaagaaaa gcagatagaa gtggttgaaa aaatgaattc tgagctttct    1860
cttagttgta agaaagaaaa agacatcttg catgaaaata gtacgttgcg ggaagaaatt    1920
gccatgctaa gactggagct agacacaatg aaacatcaga gccagctaaa aaaaaaaaaa    1980
aaaaaaaaaa aaaaaaaaaa                                               2000
```

```
        <210> 375
        <211> 2040
        <212> DNA
        <213> Homo sapien

        <400> 375
atggtggttg aggttgattc catgccggct gcctcttctg tgaagaagcc atttggtctc      60
aggagcaaga tgggcaagtg gtgctgccgt tgcttcccct gctgcaggga gagcggcaag     120
agcaacgtgg gcacttctgg agaccacgac gactctgcta tgaagacact caggagcaag     180
atgggcaagt ggtgccgcca ctgcttcccc tgctgcaggg ggagtggcaa gagcaacgtg     240
ggcgcttctg agaccacga cgactctgct atgaagacac tcaggaacaa gatgggcaag     300
tggtgctgcc actgcttccc ctgctgcagg gggagcggca agagcaaggt gggcgcttgg     360
ggagactacg atgacagtgc cttcatggag cccaggtacc acgtccgtgg agaagatctg     420
gacaagctcc acagagctgc ctggtggggt aaagtcccca gaaaggatct catcgtcatg     480
ctcagggaca ctgacgtgaa caagaaggac aagcaaaaga ggactgctct acatctggcc     540
tctgccaatg ggaattcaga agtagtaaaa ctcctgctgg acagacgatg tcaacttaat     600
gtccttgaca acaaaaagag gacagctctg ataaaggccg tacaatgcca ggaagatgaa     660
tgtgcgttaa tgttgctgga acatggcact gatccaaata ttccagatga gtatggaaat     720
accactctgc actacgctat ctataatgaa gataaattaa tggccaaagc actgctctta     780
tatggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttggtgta     840
catgagcaaa aacagcaagt cgtgaaattt ttaatcaaga aaaaagcgaa tttaaatgca     900
ctggatagat atggaaggac tgctctcata cttgctgtat gttgtggatc agcaagtata     960
gtcagccttc tacttgagca aaatattgat gtatcttctc aagatctatc tggacagacg    1020
gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact ttctgactac    1080
aaagaaaaac agatgctaaa aatctcttct gaaacagca atccagaaca agacttaaag     1140
ctgacatcag aggaagagtc acaaaggttc aaaggcagtg aaaatagcca gccagagaaa    1200
atgtctcaag aaccagaaat aaataaggat ggtgatagag aggttgaaga agaaatgaag    1260
aagcatgaaa gtaataatgt gggattacta gaaaacctga ctaatggtgt cactgctggc    1320
aatggtgata atggattaat tcctcaaagg aagagcagaa cacctgaaaa tcagcaattt    1380
cctgacaacg aaagtgaaga gtatcacaga atttgcgaat tagtttctga ctacaaagaa    1440
aaacagatgc caaaatactc ttctgaaaac agcaacccag aacaagactt aaagctgaca    1500
tcagaggaag agtcacaaag gcttgagggc agtgaaaatg ccagccaga gaaaagatct     1560
caagaaccag aaataaataa ggatggtgat agagagctag aaaattttat ggctatcgaa    1620
gaaatgaaga agcacggaag tactcatgtc ggattcccag aaaacctgac taatggtgcc    1680
actgctggca atggtgatga tggattaatt cctccaagga gagcagaac acctgaaagc     1740
cagcaatttc ctgacactga gaatgaagag tatcacagtg acgaacaaaa tgatactcag    1800
aagcaatttt gtgaagaaca gaacactgga atattacacg atgagattct gattcatgaa    1860
gaaaagcaga tagaagtggt tgaaaaaatg aattctgagc tttctcttag ttgtaagaaa    1920
gaaaaagaca tcttgcatga aaatagtacg ttgcgggaag aaattgccat gctaagactg    1980
gagctagaca caatgaaaca tcagagccag ctaaaaaaaa aaaaaaaaaa aaaaaaaaaa    2040
```

```
        <210> 376
        <211> 329
        <212> PRT
        <213> Homo sapien

        <400> 376
```

Met Asp Ile Val Val Ser Gly Ser His Pro Leu Trp Val Asp Ser Phe
 1   5   10   15
Leu His Leu Ala Gly Ser Asp Leu Leu Ser Arg Ser Leu Met Ala Glu

124

```
                    20                    25                    30
Glu Tyr Thr Ile Val His Ala Ser Phe Ile Ser Cys Ile Ser Ser Ser
        35                    40                    45
Leu Asp Gly Gln Gly Glu Arg Gln Glu Gln Arg Gly His Phe Trp Arg
    50                    55                    60
Pro Gln Arg Leu Leu Cys Glu Asp Ala Trp Glu Gln Glu Val Gln Val
65                    70                    75                    80
Val Leu Pro Leu Leu Pro Leu Leu Gln Gly Ser Gly Lys Ser Asn Val
                85                    90                    95
Val Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe Met Asp Pro Arg Tyr
            100                   105                   110
His Val His Gly Glu Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp
        115                   120                   125
Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp
    130                   135                   140
Val Asn Lys Arg Asp Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser
145                  ·150                   155                   160
Ala Asn Gly Asn Ser Glu Val Val Lys Leu Val Leu Asp Arg Arg Cys
                165                   170                   175
Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala
            180                   185                   190
Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly
        195                   200                   205
Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr
    210                   215                   220
Ala Val Tyr Asn Glu Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr
225                   230                   235                   240
Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu
            245                   250                   255
Leu Gly Ile His Glu Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys
            260                   265                   270
Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu
        275                   280                   285
Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu
    290                   295                   300
Glu Gln Asn Val Asp Val Ser Ser Gln Asp Leu Glu Arg Arg Pro Glu
305                   310                   315                   320
Ser Met Leu Phe Leu Val Ile Ile Met
                325
```

```
        <210>  377
        <211>  148
        <212>  PRT
        <213>  Homo sapien

        <220>
        <221>  VARIANT
        <222>  (1)...(148)
        <223>  Xaa = Any Amino Acid

        <400>  377
Met Thr Xaa Pro Ser Trp Ser Pro Gly Thr Thr Ser Val Glu Lys Ile
 1               5                   10                  15
Trp Thr Ser Ser Thr Glu Leu Pro Trp Trp Gly Lys Val Pro Arg Lys
            20                  25                  30
Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Xaa Asp Lys
        35                  40                  45
Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu
```

125

```
        50                    55                    60
Val Val Lys Leu Xaa Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp
65                    70                    75                    80
Asn Lys Lys Arg Thr Ala Leu Xaa Lys Ala Val Gln Cys Gln Glu Asp
            85                    90                    95
Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro
            100                   105                   110
Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Xaa Tyr Asn Glu Asp
            115                   120                   125
Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser
            130                   135                   140
Lys Asn Lys Val
145

        <210> 378
        <211> 1719
        <212> PRT
        <213> Homo sapien

        <400> 378
Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser Ser Val Lys Lys
1                     5                     10                    15
Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Cys Arg Cys Phe
            20                    25                    30
Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp
            35                    40                    45
His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp
        50                    55                    60
Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val
65                    70                    75                    80
Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Asn
            85                    90                    95
Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys Cys Arg Gly Ser
            100                   105                   110
Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe
            115                   120                   125
Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu Asp Lys Leu His
            130                   135                   140
Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met
145                   150                   155                   160
Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln Lys Arg Thr Ala
            165                   170                   175
Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys Leu Leu
            180                   185                   190
Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr
            195                   200                   205
Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met
            210                   215                   220
Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn
225                   230                   235                   240
Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys
            245                   250                   255
Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly
            260                   265                   270
Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val
            275                   280                   285
Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr
            290                   295                   300
```

126

```
Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile
305             310             315             320
Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu
            325             330             335
Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
            340             345             350
Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
            355             360             365
Ser Ser Glu Asn Ser Asn Pro Glu Asn Val Ser Arg Thr Arg Asn Lys
    370             375             380
Pro Arg Thr His Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser
385             390             395             400
Ser Val Lys Lys Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys
            405             410             415
Cys Arg Cys Phe Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly
            420             425             430
Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys
            435             440             445
Met Gly Lys Trp Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly
    450             455             460
Lys Ser Asn Val Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys
465             470             475             480
Thr Leu Arg Asn Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys
            485             490             495
Cys Arg Gly Ser Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp
            500             505             510
Asp Ser Ala Phe Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu
            515             520             525
Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp
    530             535             540
Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln
545             550             555             560
Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val
            565             570             575
Val Lys Leu Leu Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn
            580             585             590
Lys Lys Arg Thr Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu
    595             600             605
Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp
    610             615             620
Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys
625             630             635             640
Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys
            645             650             655
Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys
            660             665             670
Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala
            675             680             685
Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly
    690             695             700
Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser
705             710             715             720
Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser
            725             730             735
His His His Val Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln
            740             745             750
Met Leu Lys Ile Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys
            755             760             765
```

127

Leu Thr Ser Glu Glu Glu Ser Gln Arg Phe Lys Gly Ser Glu Asn Ser
    770   775   780
Gln Pro Glu Lys Met Ser Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp
785   790   795   800
Arg Glu Val Glu Glu Glu Met Lys Lys His Glu Ser Asn Asn Val Gly
                805   810   815
Leu Leu Glu Asn Leu Thr Asn Gly Val Thr Ala Gly Asn Gly Asp Asn
        .820   825   830
Gly Leu Ile Pro Gln Arg Lys Ser Arg Thr Pro Glu Asn Gln Gln Phe
        835   840   845
Pro Asp Asn Glu Ser Glu Glu Tyr His Arg Ile Cys Glu Leu Val Ser
    850   855   860
Asp Tyr Lys Glu Lys Gln Met Pro Lys Tyr Ser Ser Glu Asn Ser Asn
865   870   875   880
Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Leu
            885   890   895
Glu Gly Ser Glu Asn Gly Gln Pro Glu Leu Glu Asn Phe Met Ala Ile
            900   905   910
Glu Glu Met Lys Lys His Gly Ser Thr His Val Gly Phe Pro Glu Asn
        915   920   925
Leu Thr Asn Gly Ala Thr Ala Gly Asn Gly Asp Asp Gly Leu Ile Pro
    930   935   940
Pro Arg Lys Ser Arg Thr Pro Glu Ser Gln Gln Phe Pro Asp Thr Glu
945   950   955   960
Asn Glu Glu Tyr His Ser Asp Glu Gln Asn Asp Thr Gln Lys Gln Phe
            965   970   975
Cys Glu Glu Gln Asn Thr Gly Ile Leu His Asp Glu Ile Leu Ile His
            980   985   990
Glu Glu Lys Gln Ile Glu Val Val Glu Lys Met Asn Ser Glu Leu Ser
        995   1000   1005
Leu Ser Cys Lys Lys Glu Lys Asp Ile Leu His Glu Asn Ser Thr Leu
    1010   1015   1020
Arg Glu Glu Ile Ala Met Leu Arg Leu Glu Leu Asp Thr Met Lys His
1025   1030   1035   1040
Gln Ser Gln Leu Pro Arg Thr His Met Val Val Glu Val Asp Ser Met
            1045   1050   1055
Pro Ala Ala Ser Ser Val Lys Lys Pro Phe Gly Leu Arg Ser Lys Met
            1060   1065   1070
Gly Lys Trp Cys Cys Arg Cys Phe Pro Cys Cys Arg Glu Ser Gly Lys
        1075   1080   1085
Ser Asn Val Gly Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr
    1090   1095   1100
Leu Arg Ser Lys Met Gly Lys Trp Cys Arg His Cys Phe Pro Cys Cys
1105   1110   1115   1120
Arg Gly Ser Gly Lys Ser Asn Val Gly Ala Ser Gly Asp His Asp Asp
            1125   1130   1135
Ser Ala Met Lys Thr Leu Arg Asn Lys Met Gly Lys Trp Cys Cys His
            1140·   1145   1150
Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Lys Val Gly Ala Trp
        1155   1160   1165
Gly Asp Tyr Asp Asp Ser Ala Phe Met Glu Pro Arg Tyr His Val Arg
    1170   1175   1180
Gly Glu Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val
1185   1190   1195   1200
Pro Arg Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys
            1205   1210   1215
Lys Asp Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly
            1220   1225   1230

128

```
Asn Ser Glu Val Val Lys Leu Leu Leu Asp Arg Arg Cys Gln Leu Asn
        1235                1240                1245
Val Leu Asp Asn Lys Lys Arg Thr Ala Leu Ile Lys Ala Val Gln Cys
        1250                1255                1260
Gln Glu Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro
1265                1270                1275                1280
Asn Ile Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Ile Tyr
                1285                1290                1295
Asn Glu Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp
            1300                1305                1310
Ile Glu Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Val
            1315                1320                1325
His Glu Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala
        1330                1335                1340
Asn Leu Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala
1345            1350                1355                1360
Val Cys Cys Gly Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln Asn
                1365                1370                1375
Ile Asp Val Ser Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr
            1380                1385                1390
Ala Val Ser Ser His His His Val Ile Cys Gln Leu Leu Ser Asp Tyr
        1395                1400                1405
Lys Glu Lys Gln Met Leu Lys Ile Ser Ser Glu Asn Ser Asn Pro Glu
        1410                1415                1420
Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Phe Lys Gly
1425                1430                1435                1440
Ser Glu Asn Ser Gln Pro Glu Lys Met Ser Gln Glu Pro Glu Ile Asn
                1445                1450                1455
Lys Asp Gly Asp Arg Glu Val Glu Glu Glu Met Lys Lys His Glu Ser
            1460                1465                1470
Asn Asn Val Gly Leu Leu Glu Asn Leu Thr Asn Gly Val Thr Ala Gly
            1475                1480                1485
Asn Gly Asp Asn Gly Leu Ile Pro Gln Arg Lys Ser Arg Thr Pro Glu
        1490                1495                1500
Asn Gln Gln Phe Pro Asp Asn Glu Ser Glu Glu Tyr His Arg Ile Cys
1505                1510                1515                1520
Glu Leu Val Ser Asp Tyr Lys Glu Lys Gln Met Pro Lys Tyr Ser Ser
                1525                1530                1535
Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu
            1540                1545                1550
Ser Gln Arg Leu Glu Gly Ser Glu Asn Gly Gln Pro Glu Lys Arg Ser
        1555                1560                1565
Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp Arg Glu Leu Glu Asn Phe
    1570                1575                1580
Met Ala Ile Glu Glu Met Lys Lys His Gly Ser Thr His Val Gly Phe
1585                1590                1595                1600
Pro Glu Asn Leu Thr Asn Gly Ala Thr Ala Gly Asn Gly Asp Asp Gly
                1605                1610                1615
Leu Ile Pro Pro Arg Lys Ser Arg Thr Pro Glu Ser Gln Gln Phe Pro
            1620                1625                1630
Asp Thr Glu Asn Glu Glu Tyr His Ser Asp Glu Gln Asn Asp Thr Gln
        1635                1640                1645
Lys Gln Phe Cys Glu Glu Gln Asn Thr Gly Ile Leu His Asp Glu Ile
    1650                1655                1660
Leu Ile His Glu Glu Lys Gln Ile Glu Val Val Glu Lys Met Asn Ser
1665                1670                1675                1680
Glu Leu Ser Leu Ser Cys Lys Lys Glu Lys Asp Ile Leu His Glu Asn
                1685                1690                1695
```

129

```
Ser Thr Leu Arg Glu Glu Ile Ala Met Leu Arg Leu Glu Leu Asp Thr
        1700                    1705            1710
Met Lys His Gln Ser Gln Leu
        1715

        <210> 379
        <211> 656
        <212> PRT
        <213> Homo sapien

        <400> 379
Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser Ser Val Lys Lys
1                   5                   10                  15
Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Cys Arg Cys Phe
            20                  25                  30
Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp
        35                  40                  45
His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp
    50                  55                  60
Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val
65                  70                  75                  80
Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Asn
            85                  90                  95
Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys Cys Arg Gly Ser
            100                 105                 110
Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe
        115                 120                 125
Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu Asp Lys Leu His
    130                 135                 140
Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met
145                 150                 155                 160
Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln Lys Arg Thr Ala
            165                 170                 175
Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys Leu Leu
            180                 185                 190
Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr
        195                 200                 205
Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met
    210                 215                 220
Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn
225                 230                 235                 240
Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys
            245                 250                 255
Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly
        260                 265                 270
Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val
        275                 280                 285
Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr
    290                 295                 300
Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile
305                 310                 315                 320
Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu
            325                 330                 335
Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
        340                 345                 350
Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
        355                 360                 365
Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu
```

130

```
        370                    375                    380
Glu Glu Ser Gln Arg Phe Lys Gly Ser Glu Asn Ser Gln Pro Glu Lys
385                    390                    395                    400
Met Ser Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp Arg Glu Val Glu
                       405                    410                    415
Glu Glu Met Lys Lys His Glu Ser Asn Asn Val Gly Leu Leu Glu Asn
               420                    425                    430
Leu Thr Asn Gly Val Thr Ala Gly Asn Gly Asp Asn Gly Leu Ile Pro
           435                    440                    445
Gln Arg Lys Ser Arg Thr Pro Glu Asn Gln Gln Phe Pro Asp Asn Glu
       450                    455                    460
Ser Glu Glu Tyr His Arg Ile Cys Glu Leu Val Ser Asp Tyr Lys Glu
465                    470                    475                    480
Lys Gln Met Pro Lys Tyr Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp
                   485                    490                    495
Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Leu Glu Gly Ser Glu
                   500                    505                    510
Asn Gly Gln Pro Glu Leu Glu Asn Phe Met Ala Ile Glu Glu Met Lys
               515                    520                    525
Lys His Gly Ser Thr His Val Gly Phe Pro Glu Asn Leu Thr Asn Gly
       530                    535                    540
Ala Thr Ala Gly Asn Gly Asp Asp Gly Leu Ile Pro Pro Arg Lys Ser
545                    550                    555                    560
Arg Thr Pro Glu Ser Gln Gln Phe Pro Asp Thr Glu Asn Glu Glu Tyr
                   565                    570                    575
His Ser Asp Glu Gln Asn Asp Thr Gln Lys Gln Phe Cys Glu Glu Gln
               580                    585                    590
Asn Thr Gly Ile Leu His Asp Glu Ile Leu Ile His Glu Glu Lys Gln
           595                    600                    605
Ile Glu Val Val Glu Lys Met Asn Ser Glu Leu Ser Leu Ser Cys Lys
       610                    615                    620
Lys Glu Lys Asp Ile Leu His Glu Asn Ser Thr Leu Arg Glu Glu Ile
625                    630                    635                    640
Ala Met Leu Arg Leu Glu Leu Asp Thr Met Lys His Gln Ser Gln Leu
                   645                    650                    655
```

        <210> 380
        <211> 671
        <212> PRT
        <213> Homo sapien

        <400> 380
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Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser Ser Val Lys Lys
1                   5                   10                      15
Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Cys Arg Cys Phe
               20                      25                      30
Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp
           35                      40                      45
His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp
       50                      55                      60
Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val
65                      70                      75                      80
Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Asn
                   85                      90                      95
Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys Cys Arg Gly Ser
               100                     105                     110
Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe
           115                     120                     125
```

131

```
Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu Asp Lys Leu His
    130                 135                 140
Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met
145                 150                 155                 160
Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln Lys Arg Thr Ala
                165                 170                 175
Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys Leu Leu
            180                 185                 190
Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr
        195                 200                 205
Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met
    210                 215                 220
Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn
225                 230                 235                 240
Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys
                245                 250                 255
Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly
            260                 265                 270
Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val
        275                 280                 285
Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr
    290                 295                 300
Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile
305                 310                 315                 320
Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu
                325                 330                 335
Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
            340                 345                 350
Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
        355                 360                 365
Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu
    370                 375                 380
Glu Glu Ser Gln Arg Phe Lys Gly Ser Glu Asn Ser Gln Pro Glu Lys
385                 390                 395                 400
Met Ser Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp Arg Glu Val Glu
                405                 410                 415
Glu Glu Met Lys Lys His Glu Ser Asn Asn Val Gly Leu Leu Glu Asn
            420                 425                 430
Leu Thr Asn Gly Val Thr Ala Gly Asn Gly Asp Asn Gly Leu Ile Pro
        435                 440                 445
Gln Arg Lys Ser Arg Thr Pro Glu Asn Gln Gln Phe Pro Asp Asn Glu
    450                 455                 460
Ser Glu Glu Tyr His Arg Ile Cys Glu Leu Val Ser Asp Tyr Lys Glu
465                 470                 475                 480
Lys Gln Met Pro Lys Tyr Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp
                485                 490                 495
Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Leu Glu Gly Ser Glu
            500                 505                 510
Asn Gly Gln Pro Glu Lys Arg Ser Gln Glu Pro Glu Ile Asn Lys Asp
        515                 520                 525
Gly Asp Arg Glu Leu Glu Asn Phe Met Ala Ile Glu Glu Met Lys Lys
    530                 535                 540
His Gly Ser Thr His Val Gly Phe Pro Glu Asn Leu Thr Asn Gly Ala
545                 550                 555                 560
Thr Ala Gly Asn Gly Asp Asp Gly Leu Ile Pro Pro Arg Lys Ser Arg
                565                 570                 575
Thr Pro Glu Ser Gln Gln Phe Pro Asp Thr Glu Asn Glu Glu Tyr His
            580                 585                 590
```

```
Ser Asp Glu Gln Asn Asp Thr Gln Lys Gln Phe Cys Glu Glu Gln Asn
        595             600             605
Thr Gly Ile Leu His Asp Glu Ile Leu Ile His Glu Glu Lys Gln Ile
    610             615             620
Glu Val Val Glu Lys Met Asn Ser Glu Leu Ser Leu Ser Cys Lys Lys
625             630             635             640
Glu Lys Asp Ile Leu His Glu Asn Ser Thr Leu Arg Glu Glu Ile Ala
            645             650             655
Met Leu Arg Leu Glu Leu Asp Thr Met Lys His Gln Ser Gln Leu
        660             665             670
```

```
        <210> 381
        <211> 251
        <212> DNA
        <213> Homo sapien

        <400> 381
ggagaagcgt ctgctggggc aggaaggggt ttccctgccc tctcacctgt ccctcaccaa    60
ggtaacatgc ttcccctaag ggtatcccaa cccagggggcc tcaccatgac ctctgagggg   120
ccaatatccc aggagaagca ttggggagtt ggggggcaggt gaaggaccca ggactcacac   180
atcctgggcc tccaaggcag aggagagggt cctcaagaag gtcaggagga aaatccgtaa   240
caagcagtca g                                                         251
```

```
<210> 382
<211> 3279
<212> DNA
<213> Homo sapiens

<400> 382
cttcctgcag cccccatgct ggtgaggggc acggcagga acagtggacc caacatggaa 60
atgctggagg gtgtcaggaa gtgatcgggc tctgggcag ggaggagggg tggggagtgt 120
cactgggagg ggacatcctg cagaaggtag gagtgagcaa acacccgctg caggggaggg 180
gagagccctg cggcacctgg gggagcagag ggagcagcac ctgcccaggc ctgggaggag 240
gggcctggag ggcgtgagga ggagcgaggg ggctgcatgg ctggagtgag ggatcagggg 300
cagggcgcga gatggcctca cacaggaag agagggccc tcctgcaggg cctcacctgg 360
gccacaggag gacactgctt ttcctctgag gagtcaggag ctgtggatgg tgctggacag 420
aagaaggaca gggcctggct caggtgtcca gaggctgtcg ctggcttccc tttgggatca 480
gactgcaggg agggagggcg gcaggggttgt gggggggagtg acgatgagga tgacctgggg 540
gtggctccag gccttgcccc tgcctgggcc ctcacccagc ctccctcaca gtctcctggc 600
cctcagtctc tcccctccac tccatcctcc atctggcctc agtgggtcat tctgatcact 660
gaactgacca tacccagccc tgcccacggc cctccatggc tccccaatgc cctggagagg 720
ggacatctag tcagagagta gtcctgaaga ggtggcctct gcgatgtgcc tgtggggggca 780
gcatcctgca gatggtcccg gccctcatcc tgctgacctg tctgcaggga ctgtcctcct 840
ggaccttgcc ccttgtgcag gagctggacc ctgaagtccc ctccccatag gccaagactg 900
gagccttgtt ccctctgttg gactccctgc ccatattctt gtgggagtgg gttctggaga 960
catttctgtc tgttcctgag agctgggaat tgctctcagt catctgcctg cgcggttctg 1020
agagatggag ttgcctaggc agttattggg gccaatcttt ctcactgtgt ctctcctcct 1080
ttacccttag ggtgattctg ggggtccact tgtctgtaat ggtgtgcttc aaggtatcac 1140
atcatggggc cctgagccat gtgccctgcc tgaaaagcct gctgtgtaca ccaaggtggt 1200
gcattaccgg aagtggatca aggacaccat cgcagccaac ccctgactgc ccctgtccca 1260
cccctacctc tagtaaattt aagtccacct cacgttctgg catcacttgg cctttctgga 1320
tgctggacac ctgaagcttg gaactcacct ggccgaagct cgagcctcct gagtcctact 1380
gacctgtgct ttctggtgtg gagtccaggg ctgctaggaa aaggaatggg cagacacagg 1440
tgtatgccaa tgtttctgaa atgggtataa tttcgtcctc tccttcggaa cactggctgt 1500
ctctgaagac ttctcgctca gtttcagtga ggacacacac aaagacgtgg gtgaccatgt 1560
tgtttgtggg gtgcagagat gggagggggtg gggcccaccc tggaagagtg gacagtgaca 1620
caaggtggac actctctaca gatcactgag gataagctgg agccacaatg catgaggcac 1680
acacacagca aggttgacgc tgtaaacata gcccacgctg tcctggggggc actgggaagc 1740
```

133

```
ctagataagg ccgtgagcag aaagaagggg aggatcctcc tatgttgttg aaggagggac 1800
tagggggaga aactgaaagc tgattaatta caggaggttt gttcaggtcc cccaaaccac 1860
cgtcagattt gatgatttcc tagcaggact tacagaaata aagagctatc atgctgtggt 1920
ttattatggt ttgttacatt gataggatac atactgaaat cagcaaacaa aacagatgta 1980
tagattagag tgtggagaaa acagaggaaa acttgcagtt acgaagactg gcaacttggc 2040
tttactaagt tttcagactg gcaggaagtc aaacctatta ggctgaggac cttgtggagt 2100
gtagctgatc cagctgatag aggaactagc caggtggggg cctttccctt tggatggggg 2160
gcatatccga cagttattct ctccaagtgg agacttacgg acagcatata attctccctg 2220
caaggatgta tgataatatg tacaaagtaa ttccaactga ggaagctcac ctgatcctta 2280
gtgtccaggg tttttactgg gggtctgtag gacgagtatg gagtacttga ataattgacc 2340
tgaagtcctc agacctgagg ttccctagag ttcaaacaga tacagcatgg tccagagtcc 2400
cagatgtaca aaaacaggga ttcatcacaa atcccatctt tagcatgaag ggtctggcat 2460
ggcccaaggc cccaagtata tcaaggcact tgggcagaac atgccaagga atcaaatgtc 2520
atctcccagg agttattcaa gggtgagccc tttacttggg atgtacaggc tttgagcagt 2580
gcagggctgc tgagtcaacc ttttattgta cagggggatga gggaaaggga gaggatgagg 2640
aagccccct ggggatttgg tttggtcttg tgatcaggtg gtctatgggg ctatccctac 2700
aaagaagaat ccagaaatag gggcacattg aggaatgata ctgagcccaa agagcattca 2760
atcattgttt tatttgcctt ctttttcacac cattggtgag ggagggatta ccaccctggg 2820
gttatgaaga tggttgaaca ccccacacat agcaccggag atatgagatc aacagtttct 2880
tagccataga gattcacagc ccagagcagg aggacgctgc acaccatgca ggatgacatg 2940
ggggatgcgc tcgggattgg tgtgaagaag caaggactgt tagaggcagg ctttatagta 3000
acaagacggt ggggcaaact ctgatttccg tggggaatg tcatggtctt gctttactaa 3060
gttttgagac tggcaggtag tgaaactcat taggctgaga accttgtgga atgcagctga 3120
cccagctgat agaggaagta gccaggtggg agcctttccc agtgggtgtg ggacatatct 3180
ggcaagattt tgtggcactc ctggttacag atactggggc agcaaataaa actgaatctt 3240
gttttcagac cttaaaaaaa aaaaaaaaaa aaagtttt                        3279
```

<210> 383
<211> 154
<212> PRT
<213> Homo sapiens

<400> 383
```
Met Ala Gly Val Arg Asp Gln Gly Gln Gly Ala Arg Trp Pro His Thr
                  5                  10                  15
Gly Lys Arg Gly Pro Leu Leu Gln Gly Leu Thr Trp Ala Thr Gly Gly
                 20                  25                  30
His Cys Phe Ser Ser Glu Glu Ser Gly Ala Val Asp Gly Ala Gly Gln
             35                  40                  45
Lys Lys Asp Arg Ala Trp Leu Arg Cys Pro Glu Ala Val Ala Gly Phe
         50                  55                  60
Pro Leu Gly Ser Asp Cys Arg Glu Gly Gly Arg Gln Gly Cys Gly Gly
 65                  70                  75                  80
Ser Asp Asp Glu Asp Asp Leu Gly Val Ala Pro Gly Leu Ala Pro Ala
                 85                  90                  95
Trp Ala Leu Thr Gln Pro Pro Ser Gln Ser Pro Gly Pro Gln Ser Leu
                100                 105                 110
Pro Ser Thr Pro Ser Ser Ile Trp Pro Gln Trp Val Ile Leu Ile Thr
            115                 120                 125
Glu Leu Thr Ile Pro Ser Pro Ala His Gly Pro Pro Trp Leu Pro Asn
        130                 135                 140
Ala Leu Glu Arg Gly His Leu Val Arg Glu
145                 150
```

<210> 384
<211> 557
<212> DNA
<213> Homo sapiens

134

```
<400> 384
ggatcctcta gagcggccgc ctactactac taaattcgcg gccgcgtcga cgaagaagag 60
aaagatgtgt tttgtttttgg actctctgtg gtcccttcca atgctgtggg tttccaacca 120
ggggaagggt cccttttgca ttgccaagtg ccataaccat gagcactact ctaccatggt 180
tctgcctcct ggccaagcag gctggtttgc aagaatgaaa tgaatgattc tacagctagg 240
acttaacctt gaaatggaaa gtcttgcaat cccatttgca ggatccgtct gtgcacatgc 300
ctctgtagag agcagcattc ccagggacct tggaaacagt tggcactgta aggtgcttgc 360
tccccaagac acatcctaaa aggtgttgta atggtgaaaa cgtcttcctt ctttattgcc 420
ccttcttatt tatgtgaaca actgtttgtc ttttttttgta tctttttttaa actgtaaagt 480
tcaattgtga aaatgaatat catgcaaata aattatgcga ttttttttttc aaagtaaaaa 540
aaaaaaaaaa aaaaaaa                                                   557

<210> 385
<211> 337
<212> DNA
<213> Homo sapiens

<400> 385
ttcccaggtg atgtgcgagg gaagacacat ttactatcct tgatgggggct gattcctttta 60
gtttctctag cagcagatgg gttaggagga agtgacccaa gtggttgact cctatgtgca 120
tctcaaagcc atctgctgtc ttcgagtacg gacacatcat cactcctgca ttgttgatca 180
aaacgtggag gtgcttttcc tcagctaaga agcccttagc aaaagctcga atagacttag 240
tatcagacag gtccagtttc cgcaccaaca cctgctggtt ccctgtcgtg gtctggatct 300
ctttggccac caattccccc ttttccacat cccggca                           337

<210> 386
<211> 300
<212> DNA
<213> Homo sapiens

<400> 386
gggcccgcta ccggcccagg ccccgcctcg cgagtcctcc tccccgggtg cctgcccgca 60
gcccgctcgg cccagagggt gggcgcgggg ctgcctctac cggctggcgg ctgtaactca 120
gcgaccttgg cccgaaggct ctagcaagga cccaccgacc ccagccgcgg cggcggcggc 180
gcggactttg cccggtgtgt ggggcggagc ggactgcgtg tccgcggacg ggcagcgaag 240
atgttagcct tcgctgccag gaccgtggac cgatcccagg gctgtggtgt aacctcagcc 300

<210> 387
<211> 537
<212> DNA
<213> Homo sapiens

<400> 387
gggccgagtc gggcaccaag ggactctttg caggcttcct tcctcggatc atcaaggctg 60
cccctcctg tgccatcatg atcagcacct atgagttcgg caaaagcttc ttccagaggc 120
tgaaccagga ccggcttctg ggcggctgaa aggggcaagg aggcaaggac cccgtctctc 180
ccacggatgg ggagagggca ggaggagacc cagccaagtg cctttttcctc agcactgagg 240
gagggggctt gtttcccttc cctcccggcg acaagctcca gggcagggct gtccctctgg 300
gcggcccagc acttcctcag acacaacttc ttcctgctgc tccagtcgtg gggatcatca 360
cttacccacc ccccaagttc aagaccaaat cttccagctg ccccccttcgt gtttccctgt 420
gtttgctgta gctgggcatg tctccaggaa ccaagaagcc ctcagcctgg °tgtagtctcc 480
ctgacccttg ttaattcctt aagtctaaag atgatgaact tcaaaaaaaa aaaaaaa     537

<210> 388
<211> 520
<212> DNA
<213> Homo sapiens
```

135

```
<400> 388
aggataattt ttaaaccaat caaatgaaaa aaacaaacaa acaaaaaagg aaatgtcatg 60
tgaggttaaa ccagtttgca ttcccctaat gtggaaaaag taagaggact actcagcact 120
gtttgaagat tgcctcttct acagcttctg agaattgtgt tatttcactt gccaagtgaa 180
ggaccccctc cccaacatgc cccagcccac ccctaagcat ggtcccttgt caccaggcaa 240
ccaggaaact gctacttgtg gacctcacca gagaccagga gggtttggtt agctcacagg 300
acttcccccca ccccagaaga ttagcatccc atactagact catactcaac tcaactaggc 360
tcatactcaa ttgatggtta ttagacaatt ccatttcttt ctggttatta taaacagaaa 420
atctttcctc ttctcattac cagtaaaggc tcttggtatc tttctgttgg aatgatttct 480
atgaacttgt cttattttaa tggtgggttt tttttctggt 520

<210> 389
<211> 365
<212> DNA
<213> Homo sapiens

<400> 389
cgttgcccca gtttgacaga aggaaaggcg gagcttattc aaagtctaga gggagtggag 60
gagttaaggc tggatttcag atctgcctgg ttccagccgc agtgtgccct ctgctccccc 120
aacgactttc caaataatct caccagcgcc ttccagctca ggcgtcctag aagcgtcttg 180
aagcctatgg ccagctgtct ttgtgttccc tctcacccgc ctgtcctcac agctgagact 240
cccaggaaac cttcagacta ccttcctctg ccttcagcaa ggggcgttgc ccacattctc 300
tgagggtcag tggaagaacc tagactccca ttgctagagg tagaaagggg aagggtgctg 360
gggag 365

<210> 390
<211> 221
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(221)
<223> n = A,T,C or G

<400> 390
tgcctctcca tcctggcccc gacttctctg tcaggaaagt ggggatggac cccatctgca 60
tacacggntt ctcatgggtg tggaacatct ctgcttgcgg tttcaggaag gcctctggct 120
gctctangag tctgancnga ntcgttgccc cantntgaca naaggaaagg cggagcttat 180
tcaaagtcta gagggagtgg aggagttaag gctggatttc a 221

<210> 391
<211> 325
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(325)
<223> n = A,T,C or G

<400> 391
tggagcaggt cccgaggcct ccctagagcc tggggccgac tctgtgncga tgcangcttt 60
ctctcgcgcc cagcctggag ctgctcctgg catctaccaa caatcagncg aggcgagcag 120
tagccagggc actgctgcca acagccagtc cnnataccat catgtnaccc ggtgngctct 180
naanttngat ntccanagcc ctaccatcn tagttctgct ctcccaccgg ntaccagccc 240
cactgcccag gaatcctaca gccagtaccc tgtcccgacg tctctaccta ccagtacgat 300
```

136

gagacctccg gctactacta tgacc   325

<210> 392
<211> 277
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(277)
<223> n = A,T,C or G

<400> 392
atattgttta actccttcct ttatatcttt taacattttc atggngaaag gttcacatct 60
agtctcactt nggcnagngn ctcctacttg agtctcttcc ccggcctgnn ccagtngnaa 120
antaccanga accgncatgn cttaanaacn ncctggtttn tgggttnntc aatgactgca 180
tgcagtgcac caccctgtcc actacgtgat gctgtaggat taaagtctca cagtgggcgg 240
ctgaggatac agcgccgcgt cctgtgttgc tggggaa   277

<210> 393
<211> 566
<212> DNA
<213> Homo sapiens

<400> 393
actagtccag tgtggtggaa ttcgcggccg cgtcgacgga caggtcagct gtctggctca 60
gtgatctaca ttctgaagtt gtctgaaaat gtcttcatga ttaaattcag cctaaacgtt 120
ttgccgggaa cactgcagag acaatgctgt gagtttccaa ccttagccca tctgcgggca 180
gagaaggtct agtttgtcca tcagcattat catgatatca ggactggtta cttggttaag 240
gagggtcta ggagatctgt cccttttaga gacaccttac ttataatgaa gtatttggga 300
gggtggtttt caaaagtaga aatgtcctgt attccgatga tcatcctgta aacattttat 360
catttattaa tcatccctgc ctgtgtctat tattatattc atatctctac gctggaaact 420
ttctgcctca atgtttactg tgcctttgtt tttgctagtt tgtgttgttg aaaaaaaaaa 480
cattctctgc ctgagtttta atttttgtcc aaagttattt taatctatac aattaaaagc 540
ttttgcctat caaaaaaaaa aaaaaa   566

<210> 394
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

<400> 394
gaacatacat gtcccggcac ctgagctgca gtctgacatc atcgccatca cgggcctcgc 60
tgcaaattng gaccgggcca aggctggact gctggagcgt gtgaaggagc tacaggccna 120
gcaggaggac cgggctttaa ggagtttaa gctgagtgtc actgtagacc ccaaatacca 180
tcccaagatt atcgggagaa aggggcagt aattacccaa atccggttgg agcatgacgt 240
gaacatccag tttcctgata aggacgatgg gaaccagccc caggaccaaa ttaccatcac 300
agggtacgaa aagaacacag aagctgccag ggatgctata ctgagaattg tgggtgaact 360
tgagcagatg gtttctgagg acgt   384

<210> 395
<211> 399
<212> DNA

137

<210> Homo sapiens

<400> 395
ggcaaaactg tgtgacctca ataagacctc gcagatccaa ggtcaagtat cagaagtgac 60
tctgaccttg gactccaaga cctacatcaa cagcctggct atattagatg atgagccagt 120
tatcagaggt ttcatcattg cggaaattgt ggagtctaag gaaatcatgg cctctgaagt 180
attcacgtct ttccagtacc ctgagttctc tatagagttg cctaacacag gcagaattgg 240
ccagctactt gtctgcaatt gtatcttcaa gaataccctg gccatccctt tgactgacgt 300
caagttctct ttggaaagcc tgggcatctc ctcactacag acctctgacc atgggacggt 360
gcagcctggt gagaccatcc aatcccaaat aaaatgcac   399

<210> 396
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

<400> 396
tggagttntc agtgcaaaca agccataaag cttcagtagc aaattactgt ctcacagaaa 60
gacattttca acttctgctc cagctgctga taaaacaaat catgtgttta gcttgactcc 120
agacaaggac aacctgttcc ttcataactc tctagagaaa aaaaggagtt gttagtagat 180
actaaaaaaa gtggatgaat aatctggata ttttttcctaa aaagattcct tgaaacacat 240
taggaaaatg gagggcctta tgatcagaat gctagaatta gtccattgtg ctgaagcagg 300
gtttagggga gggagtgagg gataaaagaa ggaaaaaaag aagagtgaga aaacctattt 360
atcaaagcag gtgctatcac tcaatgttag gccctgctct ttt   403

<210> 397
<211> 100
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(100)
<223> n = A,T,C or G

<400> 397
actagtncag tgtggtggaa ttcgcggccg cgtcgaccta naanccatct ctatagcaaa 60
tccatccccg ctcctggttg gtnacagaat gactgacaaa   100

<210> 398
<211> 278
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(278)
<223> n = A,T,C or G

<400> 398
gcggccgcgt cgacagcagt tccgccagcg ctcgcccctg ggtgggggatg tgctgcacgc 60
ccacctggac atctggaagt cagcggcctg gatgaaagag cggacttcac ctggggcgat 120
tcactactgt gcctcgacca gtgaggagag ctggaccgac agcgaggtgg actcatcatg 180

138

```
ctccgggcag cccatccacc tgtggcagtt cctcaaggag ttgctactca agccccacag 240
ctatggccgc ttcattangt ggctcaacaa ggagaagg                              278
```

```
<210> 399
<211> 298
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(298)
<223> n = A,T,C or G

<400> 399
acggaggtgg aggaagcgnc cctgggatcg anaggatggg tcctgncatt gaccncctcn 60
ggggtgccng catggagcgc atgggcgcgg gcctgggcca cggcatggat cgcgtgggct 120
ccgagatcga gcgcatgggc ctggtcatgg accgcatggg ctccgtggag cgcatgggct 180
ccggcattga gcgcatgggc ccgctgggcc tcgaccacat ggcctccanc attgancgca 240
tgggccagac catggagcgc attggctctg gcgtggagcn catgggtgcc ggcatggg  298
```

```
<210> 400
<211> 548
<212> DNA
<213> Homo sapiens

<400> 400
acatcaacta cttcctcatt ttaaggtatg gcagttccct tcatcccctt ttcctgcctt 60
gtacatgtac atgtatgaaa tttccttctc ttaccgaact ctctccacac atcacaaggt 120
caaagaacca cacgcttaga agggtaagag ggcaccctat gaaatgaaat ggtgatttct 180
tgagtctctt ttttccacgt ttaaggggcc atggcaggac ttagagttgc gagttaagac 240
tgcagagggc tagagaatta tttcatacag gctttgaggc cacccatgtc acttatcccg 300
tataccctct caccatcccc ttgtctactc tgatgccccc aagatgcaac tgggcagcta 360
gttggcccca taattctggg cctttgttgt ttgtttttaat tacttgggca tcccaggaag 420
ctttccagtg atctcctacc atgggccccc ctcctgggat caagcccctc ccaggccctg 480
tccccagccc ctcctgcccc agcccacccg cttgccttgg tgctcagccc tcccattggg 540
agcaggtt                                                           548
```

```
<210> 401
<211> 355
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(355)
<223> n = A,T,C or G

<400> 401
actgtttcca tgttatgttt ctacacattg ctacctcagt gctcctggaa acttagcttt 60
tgatgtctcc aagtagtcca ccttcattta actctttgaa actgtatcat ctttgccaag 120
taagagtggt ggcctatttc agctgctttg acaaaatgac tggctcctga cttaacgttc 180
tataaatgaa tgtgctgaag caaagtgccc atggtggcgg cgaagaagan aaagatgtgt 240
tttgttttgg actctctgtg gtcccttcca atgctgnggg tttccaacca ggggaagggt 300
cccttttgca ttgccaagtg ccataaccat gagcactact ctaccatggn tctgc      355
```

```
<210> 402
<211> 407
<212> DNA
```

139

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 402
atggggcaag ctggataaag aaccaagacc cactggagta tgctgtcttc aagaaaccca 60
tctcacatgc ggtggcatac ataggctcaa aataaaggaa tggagaaaaa tatttcaagc 120
aaatggaaaa cagaaaaaag caggtgttgc actcctactt tctgacaaaa cagactatgc 180
gaataaagat aaaaaagaga aggacattac aaaggtggtc ctgacctttg ataaatctca 240
ttgcttgata ccaacctggg ctgttttaat tgcccaaacc aaaaggataa tttgctgagg 300
ttgtggagct tctcccctgc agagagtccc tgatctccca aaatttggtt gagatgtaag 360
gntgattttg ctgacaactc cttttctgaa gttttactca tttccaa   407

<210> 403
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(303)
<223> n = A,T,C or G

<400> 403
cagtatttat agccnaactg aaaagctagt agcaggcaag tctcaaatcc aggcaccaaa 60
tcctaagcaa gagccatggc atggtgaaaa tgcaaaagga gagtctggcc aatctacaaa 120
tagagaacaa gacctactca gtcatgaaca aaaaggcaga caccaacatg gatctcatgg 180
gggattggat attgtaatta tagagcagga agatgacagt gatcgtcatt ggcacaaca 240
tcttaacaac gaccgaaacc cattatttac ataaacctcc attcggtaac catgttgaaa 300
gga   303

<210> 404
<211> 225
<212> DNA
<213> Homo sapiens

<400> 404
aagtgtaact tttaaaaatt tagtggattt tgaaaattct tagaggaaag taaaggaaaa 60
attgttaatg cactcattta cctttacatg gtgaaagttc tctcttgatc ctacaaacag 120
acattttcca ctcgtgtttc catagttgtt aagtgtatca gatgtgttgg gcatgtgaat 180
ctccaagtgc ctgtgtaata aataaagtat ctttatttca ttcat   225

<210> 405
<211> 334
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(334)
<223> n = A,T,C or G

<400> 405
gagctgttat actgtgagtt ctactaggaa atcatcaaat ctgaggggttg tctggaggac 60
ttcaatacac ctcccccat agtgaatcag cttccagggg gtccagtccc tctccttact 120

140

```
tcatccccat cccatgccaa aggaagaccc tccctccttg gctcacagcc ttctctaggc 180
ttcccagtgc ctccaggaca gagtgggtta tgttttcagc tccatccttg ctgtgagtgt 240
ctggtgcggt tgtgcctcca gcttctgctc agtgcttcat ggacagtgtc cagcccatgt 300
cactctccac tctctcanng tggatcccac ccct                             334
```

```
<210> 406
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(216)
<223> n = A,T,C or G

<400> 406
tttcatacct aatgagggag ttganatnac atnnaaccag gaaatgcatg gatctcaang 60
gaaacaaaca cccaataaac tcggagtggc agactgacaa ctgtgagaca tgcacttgct 120
acnaaacaca aatttnatgt tgcacccttg tttctacacc tgtgggttat gacaaagaca 180
actgccaaag aatnttcaag aaggaggact gccant                           216
```

```
<210> 407
<211> 413
<212> DNA
<213> Homo sapiens

<400> 407
gctgacttgc tagtatcatc tgcattcatt gaagcacaag aacttcatgc cttgactcat 60
gtaaatgcaa taggattaaa aaataaattt gatatcacat ggaaacagac aaaaaatatt 120
gtacaacatt gcacccagtg tcagattcta cacctggcca ctcaggaagc aagagttaat 180
cccagaggtc tatgtcctaa tgtgttatgg caaatggatg tcatgcacgt accttcattt 240
ggaaaattgt catttgtcca tgtgacagtt gatacttatt cacatttcat atgggcaacc 300
tgccagacag gagaaagtct tcccatgtta aaagacattt attatcttgt tttcctgtca 360
tgggagttcc agaaaaagtt aaaacagaca atgggccagg ttctgtagta aag         413
```

```
<210> 408
<211> 183
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(183)
<223> n = A,T,C or G

<400> 408
ggagctngcc ctcaattcct ccatntctat gttancatat ttaatgtctt ttgnnattaa 60
tncttaacta gttaatcctt aaagggctan ntaatcctta actagtccct ccattgtgag 120
cattatcctt ccagtattcn ccttctnttt tatttactcc ttcctggcta cccatgtact 180
ntt                                                               183
```

```
<210> 409
<211> 250
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
```

141

```
<222> (1)...(250)
<223> n = A,T,C or G

<400> 409
cccacgcatg ataagctctt tatttctgta agtcctgcta ggaaatcatc aaatctgacg 60
gtggtttggg ggacctgaac aaacctcctg taattaatca gctttcagtt tctcccccta 120
gtccctcctt caacaacata ggaggatcct cccctttcttt ctgctcacgg ccttatctag 180
gcttcccagt gcccccagga cagcgtgggc tatgtttaca gcgcntcctt gctggggggg 240
ggccntatgc                                                         250

<210> 410
<211> 306
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(306)
<223> n = A,T,C or G

<400> 410
ggctggtttg caagaatgaa atgaatgatt ctacagctag gacttaacct tgaaatggaa 60
agtcttgcaa tcccatttgc aggatccgtc tgtgcacatg cctctgtaga gagcagcatt 120
cccagggacc ttggaaacag ttggcactgt aaggtgcttg ctccccaaga cacatcctaa 180
aaggtgttgt aatggtgaaa accgcttcct tctttattgc cccttcttat ttatgtgaac 240
nactggttgg cttttttttgn atcttttttta aactggaaag ttcaattgng aaaatgaata 300
tcntgc                                                             306

<210> 411
<211> 261
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(261)
<223> n = A,T,C or G

<400> 411
agagatattn cttaggtnaa agttcataga gttcccatga actatatgac tggccacaca 60
ggatcttttg tatttaagga ttctgagatt ttgcttgagc aggattagat aaggctgttc 120
tttaaatgtc tgaaatggaa cagatttcaa aaaaaaaccc cacaatctag ggtgggaaca 180
aggaaggaaa gatgtgaata ggctgatggg caaaaaacca atttacccat cagttccagc 240
cttctctcaa ggngaggcaa a                                             261

<210> 412
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(241)
<223> n = A,T,C or G

<400> 412
gttcaatgtt acctgacatt tctacaacac cccactcacc gatgtattcg ttgcccagtg 60
ggaacatacc agcctgaatt tggaaaaaat aattgtgttt cttgcccagg aaatactacg 120
```

142

```
actgactttg atggctccac aaacataacc cagtgtaaaa acagaagatg tggaggggag 180
ctgggagatt tcactgggta cattgaattc ccaaactacc cangcaatta cccagccaac 240
a                                                                 241
```

```
<210> 413
<211> 231
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(231)
<223> n = A,T,C or G

<400> 413
aactcttaca atccaagtga ctcatctgtg tgcttgaatc ctttccactg tctcatctcc 60
ctcatccaag tttctagtac cttctctttg ttgtgaagga taatcaaact gaacaacaaa 120
aagtttactc tcctcatttg gaacctaaaa actctcttct tcctgggtct gagggctcca 180
agaatccttg aatcanttct cagatcattg gggacaccan atcaggaacc t          231
```

```
<210> 414
<211> 234
<212> DNA
<213> Homo sapiens

<400> 414
actgtccatg aagcactgag cagaagctgg aggcacaacg caccagacac tcacagcaag 60
gatggagctg aaaacataac ccactctgtc ctggaggcac tgggaagcct agagaaggct 120
gtgagccaag gagggagggt cttcctttgg catgggatgg ggatgaagta aggagaggga 180
ctggacccccc tggaagctga ttcactatgg ggggaggtgt attgaagtcc tcca       234
```

```
<210> 415
<211> 217
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(217)
<223> n = A,T,C or G

<400> 415
gcataggatt aagactgagt atcttttcta cattctttta actttctaag gggcacttct 60
caaaacacag accaggtagc aaatctccac tgctctaagg ntctcaccac cactttctca 120
cacctagcaa tagtagaatt cagtcctact tctgaggcca gaagaatggt tcagaaaaat 180
antggattat aaaaaataac aattaagaaa aataatc                          217
```

```
<210> 416
<211> 213
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(213)
<223> n = A,T,C or G

<400> 416
```

143

```
atgcatatnt aaagganact gcctcgcttt tagaagacat ctggnctgct ctctgcatga 60
ggcacagcag taaagctctt tgattcccag aatcaagaac tctcccttc agactattac 120
cgaatgcaag gtggttaatt gaaggccact aattgatgct caaatagaag gatattgact 180
atattggaac agatggagtc tctactacaa aag                                213
```

```
<210> 417
<211> 303
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(303)
<223> n = A,T,C or G
```

```
<400> 417
nagtcttcag gcccatcagg gaagttcaca ctggagagaa gtcatacata tgtactgtat 60
gtgggaaagg ctttactctg agttcaaatc ttcaagccca tcagagagtc cacactggag 120
agaagccata caaatgcaat gagtgtggga agagcttcag gagggattcc cattatcaag 180
ttcatctagt ggtccacaca ggagagaaac cctataaatg tgagatatgt gggaagggct 240
tcantcaaag ttcgtatctt caaatccatc ngaaggncca cagtatanan aaacctttta 300
agt                                                                303
```

```
<210> 418
<211> 328
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(328)
<223> n = A,T,C or G
```

```
<400> 418
tttttggcgg tggtggggca gggacgggac angagtctca ctctgttgcc caggctggag 60
tgcacaggca tgatctcggc tcactacaac ccctgcctcc catgtccaag cgattcttgt 120
gcctcagcct tccctgtagc tagaattaca ggcacatgcc accacaccca gctagttttt 180
gtatttttag tagagacagg gtttcaccat gttggccagg ctggtctcaa actcctnacc 240
tcagnggtca ggctggtctc aaactcctga cctcaagtga tctgcccacc tcagcctccc 300
aaagtgctan gattacaggc cgtgagcc                                      328
```

```
<210> 419
<211> 389
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G
```

```
<400> 419
cctcctcaag acggcctgtg gtccgcctcc cggcaaccaa gaagcctgca gtgccatatg 60
acccctgagc catggactgg agcctgaaag gcagcgtaca ccctgctcct gatcttgctg 120
cttgtttcct ctctgtggct ccattcatag cacagttgtt gcactgaggc ttgtgcaggc 180
cgagcaaggc caagctggct caaagagcaa ccagtcaact ctgccacggt gtgccaggca 240
ccggttctcc agccaccaac ctcactcgct cccgcaaatg gcacatcagt tcttctaccc 300
taaaggtagg accaaagggc atctgctttt ctgaagtcct ctgctctatc agccatcacg 360
```

144

```
tggcagccac tcnggctgtg tcgacgcgg                                      389


<210> 420
<211> 408
<212> DNA
<213> Homo sapiens

<400> 420
gttcctccta actcctgcca gaaacagctc tcctcaacat gagagctgca cccctcctcc 60
tggccagggc agcaagcctt agccttggct tcttgtttct gctttttttc tggctagacc 120
gaagtgtact agccaaggag ttgaagtttg tgactttggt gtttcggcat ggagaccgaa 180
gtcccattga cacctttccc actgacccca taaaggaatc ctcatggcca caaggatttg 240
gccaactcac ccagctgggc atggagcagc attatgaact tggagagtat ataagaaaga 300
gatatagaaa attcttgaat gagtcctata aacatgaaca ggtttatatt cgaagcacag 360
acgttgaccg gactttgatg aagtgctatg acaaacctgg caagcccg            408


<210> 421
<211> 352
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(352)
<223> n = A,T,C or G

<400> 421
gctcaaaaat cttttttactg atnggcatgg ctacacaatc attgactatt acggaggcca 60
gaggagaatg aggcctggcc tgggagccct gtgcctacta naagcacatt agattatcca 120
ttcactgaca gaacaggtct tttttgggtc cttcttctcc accacnatat acttgcagtc 180
ctccttcttg aagattctttt ggcagttgtc tttgtcataa cccacaggtg tagaaacaag 240
ggtgcaacat gaaatttctg tttcgtagca agtgcatgtc tcacaagttg gcangtctgc 300
cactccgagt ttattgggtg tttgtttcct ttgagatcca tgcatttcct gg          352


<210> 422
<211> 337
<212> DNA
<213> Homo sapiens

<400> 422
atgccaccat gctggcaatg cagcgggcgg tcgaaggcct gcatatccag cccaagctgg 60
cgatgatcga cggcaaccgt tgcccgaagt tgccgatgcc agccgaagcg gtggtcaagg 120
gcgatagcaa ggtgccggcg atcgcggcgg cgtcaatcct ggccaaggtc agccgtgatc 180
gtgaaatggc agctgtcgaa ttgatctacc cgggttatgg catcggcggg cataagggct 240
atccgacacc ggtgcacctg gaagccttgc agcggctggg gccgacgccg attcaccgac 300
gcttcttccg ccggtacggc tggcctatga aaattat                          337


<210> 423
<211> 310
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(310)
<223> n = A,T,C or G

<400> 423
```

145

```
gctcaaaaat cttttttactg atatggcatg gctacacaat cattgactat tagaggccag 60
aggagaatga ggcctggcct gggagccctg tgcctactan aagcncatta gattatccat 120
tcactgacag aacaggtctt ttttgggtcc ttcttctcca ccacgatata cttgcagtcc 180
tccttcttga agattctttg gcagttgtct ttgtcataac ccacaggtgt anaaacaagg 240
gtgcaacatg aaatttctgt ttcgtagcaa gtgcatgtct cacagttgtc aagtctgccc 300
tccgagttta                                                        310
```

```
<210> 424
<211> 370
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(370)
<223> n = A,T,C or G

<400> 424
gctcaaaaat ctttttactg ataggcatgg ctacacaatc attgactatt agaggccaga 60
ggagaatgag gcctggcctg ggagccctgt gcctactaga agcacattag attatccatt 120
cactgacaga acaggtcttt tttgggtcct tcttctccac cacgatatac ttgcagtcct 180
ccttcttgaa gattctttgg cagttgtctt tgtcataacc cacaggtgta gaaacatcct 240
ggttgaatct cctggaactc cctcattagg tatgaaatag catgatgcat tgcataaagt 300
cacgaaggtg gcaaagatca caacgctgcc cagganaaca ttcattgtga taagcaggac 360
tccgtcgacg                                                        370
```

```
<210> 425
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(216)
<223> n = A,T,C or G

<400> 425
aattgctatn ntttatttttg ccactcaaaa taattaccaa aaaaaaaaaa tnttaaatga 60
taacaacnca acatcaaggn aaananaaca ggaatggntg actntgcata aatnggccga 120
anattatcca ttatnttaag ggttgacttc aggntacagc acacagacaa acatgcccag 180
gaggntntca ggaccgctcg atgtnttntg aggagg                          216
```

```
<210> 426
<211> 596
<212> DNA
<213> Homo sapiens

<400> 426
cttccagtga ggataaccct gttgccccgg gccgaggttc tccattaggc tctgattgat 60
tggcagtcag tgatggaagg gtgttctgat cattccgact gccccaaggg tcgctggcca 120
gctctctgtt ttgctgagtt ggcagtagga cctaatttgt taattaagag tagatggtga 180
gctgtccttg tattttgatt aacctaatgg ccttcccagc acgactcgga ttcagctgga 240
gacatcacgg caacttttaa tgaaatgatt tgaagggcca ttaagaggca cttcccgtta 300
ttaggcagtt catctgcact gataacttct tggcagctga gctggtcgga gctgtggccc 360
aaacgcacac ttggcttttg gttttgagat acaactctta atcttttagt catgcttgag 420
ggtggatggc ctttttcagct ttaacccaat ttgcactgcc ttggaagtgt agccaggaga 480
atacactcat atactcgtgg gcttagaggc cacagcagat gtcattggtc tactgcctga 540
gtcccgctgg tcccatccca ggaccttcca tcggcgagta cctgggagcc cgtgct      596
```

146

```
<210> 427
<211> 107
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(107)
<223> n = A,T,C or G

<400> 427
gaagaattca agttaggttt attcaaaggg cttacngaga atcctanacc caggncccag   60
cccgggagca gccttanaga gctcctgttt gactgcccgg ctcagng               107

<210> 428
<211> 38
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(38)
<223> n = A,T,C or G

<400> 428
gaacttccna anaangactt tattcactat tttacatt                           38

<210> 429
<211> 544
<212> DNA
<213> Homo sapiens

<400> 429
ctttgctgga cggaataaaa gtggacgcaa gcatgacctc ctgatgaggg cgctgcattt   60
attgaagagc ggctgcagcc ctgcggttca gattaaaatc cgagaattgt atagacgccg  120
atatccacga actcttgaag gactttctga tttatccaca atcaaatcat cggttttcag  180
tttggatggt ggctcatcac ctgtagaacc tgacttggcc gtggctggaa tccactcgtt  240
gccttccact tcagttacac ctcactcacc atcctctcct gttggttctg tgctgcttca  300
agatactaag cccacatttg agatgcagca gccatctccc ccaattcctc ctgtccatcc  360
tgatgtgcag ttaaaaaatc tgccctttta tgatgtcctt gatgttctca tcaagcccac  420
gagtttagtt caaagcagta ttcagcgatt tcaagagaag ttttttattt ttgctttgac  480
acctcaacaa gttagagaga tatgcatatc cagggatttt ttgccaggtg gtaggagaga  540
ttat                                                               544

<210> 430
<211> 507
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(507)
<223> n = A,T,C or G

<400> 430
cttatcncaa tggggctccc aaacttggct gtgcagtgga aactccgggg gaattttgaa   60
gaacactgac acccatcttc caccccgaca ctctgattta attgggctgc agtgagaaca  120
```

147

```
gagcatcaat ttaaaaagct gcccagaatg ttntcctggg cagcgttgtg atctttgccn 180
ccttcgtgac tttatgcaat gcatcatgct atttcatacc taatgaggga gttccaggag 240
attcaaccag gatgtttcta cncctgtggg ttatgacaaa gacaactgcc aaagaatntt 300
caagaaggag gactgcaagt atatcgtggt ggagaagaag gacccaaaaa agacctgttc 360
tgtcagtgaa tggataatct aatgtgcttc tagtaggcac agggctccca ggccaggcct 420
cattctcctc tggcctctaa tagtcaatga ttgtgtagcc atgcctatca gtaaaaagat 480
ttttgagcaa aaaaaaaaaa aaaaaaa                                     507
```

<210> 431
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

<400> 431
```
gaaaattcag aatggataaa aacaaatgaa gtacaaaata tttcagattt acatagcgat 60
aaacaagaaa gcacttatca ggaggactta caaatggaag tacactctan aaccatcatc 120
tatcatggct aaatgtgaga ttagcacagc tgtattattt gtacattgca aacacctaga 180
aagagatggg aaacaaaatc ccaggagttt tgtgtgtgga gtcctgggtt ttccaacaga 240
catcattcca gcattctgag attagggnga ttggggatca ttctggagtt ggaatgttca 300
acaaaagtga tgttgttagg taaaatgtac aacttctgga tctatgcaga cattgaaggt 360
gcaatgagtc tggcttttac tctgctgttt ct                              392
```

<210> 432
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 432
```
ggtatccnta cataatcaaa tatagctgta gtacatgttt tcattggngt agattaccac 60
aaatgcaagg caacatgtgt agatctcttg tcttattctt ttgtctataa tactgtattg 120
ngtagtccaa gctctcggna gtccagccac tgngaaacat gctcccttta gattaacctc 180
gtggacnctn ttgttgnatt gtctgaactg tagngccctg tattttgctt ctgtctgnga 240
attctgttgc ttctggggca tttccttgng atgcagagga ccaccacaca gatgacagca 300
atctgaattg ntccaatcac agctgcgatt aagacatact gaaatcgtac aggaccggga 360
acaacgtata gaacactgga gtccttt                                     387
```

<210> 433
<211> 281
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(281)
<223> n = A,T,C or G

<400> 433
```
ttcaactagc anagaanact gcttcagggn gtgtaaaatg aaaggcttcc acgcagttat 60
```

148

```
ctgattaaag aacactaaga gagggacaag gctagaagcc gcaggatgtc tacactatag 120
caggcnctat ttgggttggc tggaggagct gtggaaaaca tggagagatt ggcgctggag 180
atcgccgtgg ctattcctcn ttgntattac accagngagg ntctctgtnt gcccactggt 240
tnnaaaaccg ntatacaata atgatagaat aggacacaca t                       281
```

```
<210> 434
<211> 484
<212> DNA
<213> Homo sapiens
```

```
<400> 434
ttttaaaata agcatttagt gctcagtccc tactgagtac tctttctctc ccctcctctg 60
aatttaattc tttcaacttg caatttgcaa ggattacaca tttcactgtg atgtatattg 120
tgttgcaaaa aaaaaaaagt gtctttgttt aaaattactt ggtttgtgaa tccatcttgc 180
tttttcccca ttggaactag tcattaaccc atctctgaac tggtagaaaa acatctgaag 240
agctagtcta tcagcatctg acaggtgaat tggatggttc tcagaaccat ttcacccaga 300
cagcctgttt ctatcctgtt taataaatta gtttgggttc tctacatgca taacaaaccc 360
tgctccaatc tgtcacataa aagtctgtga cttgaagttt agtcagcacc cccaccaaac 420
tttatttttc tatgtgtttt ttgcaacata tgagtgtttt gaaaataaag tacccatgtc 480
ttta                                                                484
```

```
<210> 435
<211> 424
<212> DNA
<213> Homo sapiens
```

```
<400> 435
gcgccgctca gagcaggtca ctttctgcct tccacgtcct ccttcaagga agccccatgt 60
gggtagcttt caatatcgca ggttcttact cctctgcctc tataagctca aacccaccaa 120
cgatcgggca agtaaacccc ctccctcgcc gacttcggaa ctggcgagag ttcagcgcag 180
atgggcctgt ggggagggg caagatagat gagggggagc ggcatggtgc ggggtgaccc 240
cttggagaga ggaaaaaggc cacaagaggg gctgccaccg ccactaacgg agatggccct 300
ggtagagacc tttgggggtc tggaacctct ggactcccca tgctctaact cccacactct 360
gctatcagaa acttaaactt gaggattttc tctgtttttc actcgcaata aattcagagc 420
aaac                                                                424
```

```
<210> 436
<211> 667
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(667)
<223> n = A,T,C or G
```

```
<400> 436
accttgggaa nactctcaca atataaaggg tcgtagactt tactccaaat tccaaaaagg 60
tcctggccat gtaatcctga aagttttccc aaggtagcta taaaatcctt ataagggtgc 120
agcctcttct ggaattcctc tgatttcaaa gtctcactct caagttcttg aaaacgaggg 180
cagttcctga aaggcaggta tagcaactga tcttcagaaa gaggaactgt gtgcaccggg 240
atgggctgcc agagtaggat aggattccag atgctgacac cttctggggg aaacagggct 300
gccaggtttg tcatagcact catcaaagtc cggtcaacgt ctgtgcttcg aatataaacc 360
tgttcatgtt tataggactc attcaagaat tttctatatc tctttcttat atactctcca 420
agttcataat gctgctccat gcccagctgg gtgagttggc caaatccttg tggccatgag 480
gattcctttta tggggtcagt gggaaaggtg tcaatgggac ttcggtctcc atgccgaaac 540
accaaagtca caaacttcaa ctccttggct agtacacttc ggtctagcca gaaaaaaagc 600
agaaacaaga agccaaggct aaggcttgct gccctgccag gaggaggggt gcagctctca 660
```

149

tgttgag   667

```
<210> 437
<211> 693
<212> DNA
<213> Homo sapiens

<400> 437
ctacgtctca accctcattt ttaggtaagg aatcttaagt ccaaagatat taagtgactc 60
acacagccag gtaaggaaag ctggattggc acactaggac tctaccatac cgggtttttgt 120
taaagctcag gttaggaggc tgataagctt ggaaggaact tcagacagct ttttcagatc 180
ataaaagata attcttagcc catgttcttc tccagagcag acctgaaatg acagcacagc 240
aggtactcct ctattttcac ccctcttgct tctactctct ggcagtcaga cctgtgggag 300
gccatgggag aaagcagctc tctggatgtt tgtacagatc atggactatt ctctgtggac 360
catttctcca ggttacccta ggtgtcacta ttggggggac agccagcatc tttagctttc 420
atttgagttt ctgtctgtct tcagtagagg aaacttttgc tcttcacact tcacatctga 480
acacctaact gctgttgctc ctgaggtggt gaaagacaga tatagagctt acagtattta 540
tcctatttct aggcactgag ggctgtgggg taccttgtgg tgccaaaaca gatcctgttt 600
taaggacatg ttgcttcaga gatgtctgta actatctggg ggctctgttg gctctttacc 660
ctgcatcatg tgctctcttg gctgaaaatg acc                               693

<210> 438
<211> 360
<212> DNA
<213> Homo sapiens

<400> 438
ctgcttatca caatgaatgt tctcctgggc agcgttgtga tctttgccac cttcgtgact 60
ttatgcaatg catcatgcta tttcatacct aatgagggag ttccaggaga ttcaaccagg 120
atgtttctac acctgtgggt tatgacaaag acaactgcca aagaatcttc aagaaggagg 180
actgcaagta tatctggtgg agaagaagga cccaaaaaag acctgttctg tcagtgaatg 240
gataatctaa tgtgcttcta gtaggcacag ggctcccagg ccaggcctca ttctcctctg 300
gcctctaata gtcaataatt gtgtagccat gcctatcagt aaaaagattt ttgagcaaac 360

<210> 439
<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(431)
<223> n = A,T,C or G

<400> 439
gttcctnnta actcctgcca gaaacagctc tcctcaacat gagagctgca cccctcctcc 60
tggccagggc agcaagcctt agccttggct tcttgtttct gcttttttc tggctagacc 120
gaagtgtact agccaaggag ttgaagtttg tgactttggt gtttcggcat ggagaccgaa 180
gtcccattga caccttcccc actgacccca taaaggaatc ctcatggcca caaggatttg 240
gccaactcac ccagctgggc atggagcagc attatgaact tggagagtat ataagaaaga 300
gatatagaaa attcttgaat gagtcctata aacatgaaca ggtttatatt cgaagcacag 360
acgttgaccg gactttgatg agtgctatga caaacctggc agcccgtcga cgcggccgcg 420
aatttagtag t                                                      431

<210> 440
<211> 523
<212> DNA
<213> Homo sapiens
```

150

```
<400> 440
agagataaag cttaggtcaa agttcataga gttcccatga actatatgac tggccacaca 60
ggatcttttg tatttaagga ttctgagatt ttgcttgagc aggattagat aaggctgttc 120
tttaaatgtc tgaaatggaa cagatttcaa aaaaaaaccc cacaatctag ggtgggaaca 180
aggaaggaaa gatgtgaata ggctgatggg caaaaaacca atttacccat cagttccagc 240
cttctctcaa ggagaggcaa agaaaggaga tacagtggag acatctggaa agttttctcc 300
actggaaaac tgctactatc tgttttata tttctgttaa aatatatgag gctacagaac 360
taaaaattaa aacctctttg tgtcccttgg tcctggaaca tttatgttcc ttttaaagaa 420
acaaaaatca aactttacag aaagatttga tgtatgtaat acatatagca gctcttgaag 480
tatatatatc atagcaaata agtcatctga tgagaacaag cta                 523
```

```
<210> 441
<211> 430
<212> DNA
<213> Homo sapiens
```

```
<400> 441
gttcctccta actcctgcca gaaacagctc tcctcaacat gagagctgca cccctcctcc 60
tggccagggc agcaagcctt agccttggct tcttgtttct gcttttttc tggctagacc 120
gaagtgtact agccaaggag ttgaagtttg tgactttggt gtttcggcat ggagaccgaa 180
gtcccattga cacctttccc actgacccca taaaggaatc ctcatggcca caaggatttg 240
gccaactcac ccagctgggc atggagcagc attatgaact tggagagtat ataagaaaga 300
gatatagaaa attcttgaat gagtcctata aacatgaaca ggtttatatt cgaagcacag 360
acgttgaccg gactttgatg agtgctatga caaacctggc agcccgtcga cgcggccgcg 420
aatttagtag                                                       430
```

```
<210> 442
<211> 362
<212> DNA
<213> Homo sapiens
```

```
<400> 442
ctaaggaatt agtagtgttc ccatcacttg tttggagtgt gctattctaa aagatttttga 60
tttcctggaa tgacaattat attttaactt tggtggggga aagagttata ggaccacagt 120
cttcacttct gatacttgta aattaatctt ttattgcact tgttttgacc attaagctat 180
atgtttagaa atggtcattt tacggaaaaa ttagaaaaat tctgataata gtgcagaata 240
aatgaattaa tgttttactt aatttatatt gaactgtcaa tgacaaataa aaattcttttt 300
tgattatttt ttgttttcat ttaccagaat aaaaactaag aattaaaagt ttgattacag 360
tc                                                               362
```

```
<210> 443
<211> 624
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(624)
<223> n = A,T,C or G
```

```
<400> 443
ttttttttt gcaacacaat atacatcaca gtgaaatgtg taatccttgc aaattgcaag 60
ttgaaagaat taaattcaga ggaggggaga gaaagagtac tcagtaggga ctgagcacta 120
aatgcttatt ttaaaagaaa tgtaaagagc agaaagcaat tcaggctacc ctgccttttg 180
tgctggctag tactccggtc ggtgtcagca gcacgtggca ttgaacattg caatgtggag 240
cccaaaccac agaaaatggg gtgaaattgg ccaactttct attaacttgg cttcctgttt 300
tataaaatat tgtgaataat atcacctact tcaaagggca gttatgaggc ttaaatgaac 360
```

151

```
taacgcctac aaaacactta aacatagata acataggtgc aagtactatg tatctggtac 420
atggtaaaca tccttattat taaagtcaac gctaaaatga atgtgtgtgc atatgctaat 480
agtacagaga gagggcactt aaaccaacta agggcctgga gggaaggttt cctggaaaga 540
ngatgcttgt gctgggtcca aatcttggtc tactatgacc ttggccaaat tatttaaact 600
ttgtccctat ctgctaaaca gatc                                        624
```

```
<210> 444
<211> 425
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(425)
<223> n = A,T,C or G
```

```
<400> 444
gcacatcatt nntcttgcat tctttgagaa taagaagatc agtaaatagt tcagaagtgg 60
gaagctttgt ccaggcctgt gtgtgaaccc aatgttttgc ttagaaatag aacaagtaag 120
ttcattgcta tagcataaca caaaatttgc ataagtggtg gtcagcaaat ccttgaatgc 180
tgcttaatgt gagaggttgg taaaatcctt tgtgcaacac tctaactccc tgaatgtttt 240
gctgtgctgg gacctgtgca tgccagacaa ggccaagctg gctgaaagag caaccagcca 300
cctctgcaat ctgccacctc ctgctggcag gatttgtttt tgcatcctgt gaagagccaa 360
ggaggcacca gggcataagt gagtagactt atggtcgacg cggccgcgaa tttagtagta 420
gtaga                                                             425
```

```
<210> 445
<211> 414
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G
```

```
<400> 445
catgtttatg nttttggatt actttgggca cctagtgttt ctaaatcgtc tatcattctt 60
ttctgttttt caaaagcaga gatggccaga gtctcaacaa actgtatctt caagtctttg 120
tgaaattctt tgcatgtggc agattattgg atgtagtttc ctttaactag catataaatc 180
tggtgtgttt cagataaatg aacagcaaaa tgtggtggaa ttaccatttg gaacattgtg 240
aatgaaaaat tgtgtctcta gattatgtaa caaataacta tttcctaacc attgatcttt 300
ggatttttat aatcctactc acaaatgact aggcttctcc tcttgtattt tgaagcagtg 360
tgggtgctgg attgataaaa aaaaaaaaag tcgacgcggc cgcgaattta gtag       414
```

```
<210> 446
<211> 631
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (1)...(631)
<223> n = A,T,C or G
```

```
<400> 446
acaaattaga anaaagtgcc agagaacacc acataccttg tccggaacat tacaatggct 60
tctgcatgca tgggaagtgt gagcattcta tcaatatgca ggagccatct tgcaggtgtg 120
```

152

```
atgctggtta tactggacaa cactgtgaaa aaaaggacta cagtgttcta tacgttgttc 180
ccggtcctgt acgatttcag tatgtcttaa tcgcagctgt gattggaaca attcagattg 240
ctgtcatctg tgtggtggtc ctctgcatca caagggccaa actttaggta atagcattgg 300
actgagattt gtaaactttc caaccttcca ggaaatgccc cagaagcaac agaattcaca 360
gacagaagca aaatacaggg cactacagtt cagacaatac aacaagagcg tccacgaggt 420
taatctaaag ggagcatgtt tcacagtggc tggactaccg agagcttgga ctacacaata 480
cagtattata gacaaaagaa taagacaaga gatctacaca tgttgccttg catttgtggt 540
aatctacacc aatgaaaaca tgtactacag ctatatttga ttatgtatgg atatatttga 600
aaatagtatac attgtcttga tgttttttct g                                631
```

```
<210> 447
<211> 585
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(585)
<223> n = A,T,C or G

<400> 447
ccttgggaaa antntcacaa tataaagggt cgtagacttt actccaaatt ccaaaaaggt 60
cctggccatg taatcctgaa agttttccca aggtagctat aaaatcctta taagggtgca 120
gcctcttctg gaattcctct gatttcaaag tctcactctc aagttcttga aaacgagggc 180
agttcctgaa aggcaggtat agcaactgat cttcagaaag aggaactgtg tgcaccggga 240
tgggctgcca gagtaggata ggattccaga tgctgacacc ttctggggga aacagggctg 300
ccaggtttgt catagcactc atcaaagtcc ggtcaacgtc tgtgcttcga atataaacct 360
gttcatgttt ataggactca ttcaagaatt ttctatatct ctttcttata tactctccaa 420
gttcataatg ctgctccatg cccagctggg tgagttggcc aaatccttgt ggccatgagg 480
attcctttat ggggtcagtg ggaaaggtgt caatgggact tcggtctcca tgccgaaaca 540
ccaaagtcac aaacttcaac tccttggcta gtacacttcg gtcta               585
```

```
<210> 448
<211> 93
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(93)
<223> n = A,T,C or G

<400> 448
tgctcgtggg tcattctgan nnccgaactg accntgccag ccctgccgan gggccnccat 60
ggctccctag tgccctggag aggangggc tag                            93
```

```
<210> 449
<211> 706
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(706)
<223> n = A,T,C or G

<400> 449
ccaagttcat gctntgtgct ggacgctgga cagggggcaa aagcnnttgc tcgtgggtca 60
```

153

```
ttctgancac cgaactgacc atgccagccc tgccgatggt cctccatggc tccctagtgc 120
cctggagagg aggtgtctag tcagagagta gtcctggaag gtggcctctg ngaggagcca 180
cggggacagc atcctgcaga tggtcgggcg cgtcccattc gccattcagg ctgcgcaact 240
gttgggaagg gcgatcggtg cgggcctctt cgctattacg ccagctggcg aaaggggggat 300
gtgctgcaag gcgattaagt tgggtaacgc cagggttttc ccagtcncga cgttgtaaaa 360
cgacggccag tgaattgaat ttaggtgacn ctatagaaga gctatgacgt cgcatgcacg 420
cgtacgtaag cttggatcct ctagagcggc cgcctactac tactaaattc gcggccgcgt 480
cgacgtggga tccncactga gagagtggag agtgacatgt gctggacnct gtccatgaag 540
cactgagcag aagctggagg cacaacgcnc cagacactca cagctactca ggaggctgag 600
aacaggttga acctgggagg tggaggttgc aatgagctga gatcaggccn ctgcnccca 660
gcatggatga cagagtgaaa ctccatctta aaaaaaaaaa aaaaaa            706
```

<210> 450
<211> 493
<212> DNA
<213> Homo sapiens

<400> 450
```
gagacggagt gtcactctgt tgcccaggct ggagtgcagc aagacactgt ctaagaaaaa 60
acagttttaa aaggtaaaac aacataaaaa gaaatatcct atagtggaaa taagagagtc 120
aaatgaggct gagaacttta caaagggatc ttacagacat gtcgccaata tcactgcatg 180
agcctaagta taagaacaac ctttggggag aaaccatcat ttgacagtga ggtacaattc 240
caagtcaggt agtgaaatgg gtggaattaa actcaaatta atcctgccag ctgaaacgca 300
agagacactg tcagagagtt aaaaagtgag ttctatccat gaggtgattc cacagtcttc 360
tcaagtcaac acatctgtga actcacagac caagttctta aaccactgtt caaactctgc 420
tacacatcag aatcacctgg agagctttac aaactcccat tgccgagggt cgacgcggcc 480
gcgaatttag tag                                                     493
```

<210> 451
<211> 501
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(501)
<223> n = A,T,C or G

<400> 451
```
gggcgcgtcc cattcgccat tcaggctgcg caactgttgg gaagggcgat cggtgcgggc 60
ctcttcgcta ttacgccagc tggcgaaagg gggatgtgct gcaaggcgat taagttgggt 120
aacgccaggg ttttcccagt cncgacgttg taaaacgacg gccagtgaat tgaatttagg 180
tgacnctata gaagagctat gacgtcgcat gcacgcgtac gtaagcttgg atcctctaga 240
gcggccgcct actactacta aattcgcggc cgcgtcgacg tgggatccnc actgagagag 300
tggagagtga catgtgctgg acnctgtcca tgaagcactg agcagaagct ggaggcacaa 360
cgcnccagac actcacagct actcaggagg ctgagaacag gttgaacctg ggaggtggag 420
gttgcaatga gctgagatca ggccnctgcn ccccagcatg gatgacagag tgaaactcca 480
tcttaaaaaa aaaaaaaaaa a                                           501
```

<210> 452
<211> 51
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(51)
<223> n = A,T,C or G

154

<400> 452
agacggtttc accnttacaa cnccttttag gatgggnntt ggggagcaag c   51

<210> 453
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(317)
<223> n = A,T,C or G

<400> 453
tacatcttgc tttttcccca ttggaactag tcattaaccc atctctgaac tggtagaaaa 60
acatctgaag agctagtcta tcagcatctg gcaagtgaat tggatggttc tcagaaccat 120
ttcacccana cagcctgttt ctatcctgtt taataaatta gtttgggttc tctacatgca 180
taacaaaccc tgctccaatc tgtcacataa aagtctgtga cttgaagttt antcagcacc 240
cccaccaaac tttattttc tatgtgtttt ttgcaacata tgagtgtttt gaaaataagg 300
tacccatgtc tttatta   317

<210> 454
<211> 231
<212> DNA
<213> Homo sapiens

<400> 454
ttcgaggtac aatcaactct cagagtgtag tttccttcta tagatgagtc agcattaata 60
taagccacgc cacgctcttg aaggagtctt gaattctcct ctgctcactc agtagaacca 120
agaagaccaa attcttctgc atcccagctt gcaaacaaaa ttgttcttct aggtctccac 180
ccttcctttt tcagtgttcc aaagctcctc acaatttcat gaacaacagc t   231

<210> 455
<211> 231
<212> DNA
<213> Homo sapiens

<400> 455
taccaaagag ggcataataa tcagtctcac agtagggttc accatcctcc aagtgaaaaa 60
cattgttccg aatgggcttt ccacaggcta cacacacaaa acaggaaaca tgccaagttt 120
gtttcaacgc attgatgact tctccaagga tcttcctttg gcatcgacca cattcagggg 180
caaagaattt ctcatagcac agctcacaat acagggctcc tttctcctct a   231

<210> 456
<211> 231
<212> DNA
<213> Homo sapiens

<400> 456
ttggcaggta cccttacaaa gaagacacca taccttatgc gttattaggt ggaataatca 60
ttccattcag tattatcgtt attattcttg gagaaaccct gtctgtttac tgtaaccttt 120
tgcactcaaa ttcctttatc aggaataact acatagccac tatttacaaa gccattggaa 180
ccttttttatt tggtgcagct gctagtcagt ccctgactga cattgccaag t   231

<210> 457
<211> 231
<212> DNA

155

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<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(231)
<223> n = A,T,C or G

<400> 457
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gcattcctta atatgatctt gctataatta gattttctc cattagagtt catacagttt 120
tatttgattt tattagcaat ctctttcaga agacccttga gatcattaag ctttgtatcc 180
agttgtctaa atcgatgcct catttcctct gaggtgtcgc tggctttgt g         231

<210> 458
<211> 231
<212> DNA
<213> Homo sapiens

<400> 458
aggtctggtt ccccccactt ccactcccct ctactctctc taggactggg ctgggccaag 60
agaagagggg tggttaggga agccgttgag acctgaagcc ccaccctcta ccttccttca 120
acaccctaac cttgggtaac agcatttgga attatcattt gggatgagta gaatttccaa 180
ggtcctgggt taggcatttt gggggggccag accccaggag aagaagattc t         231

<210> 459
<211> 231
<212> DNA
<213> Homo sapiens

<400> 459
ggtaccgagg ctcgctgaca cagagaaacc ccaacgcgag gaaaggaatg gccagccaca 60
ccttcgcgaa acctgtggtg gcccaccagt cctaacggga caggacagag agacagagca 120
gccctgcact gtttttccctc caccacagcc atcctgtccc tcattggctc tgtgctttcc 180
actatacaca gtcaccgtcc caatgagaaa caagaaggag caccctccac a         231

<210> 460
<211> 231
<212> DNA
<213> Homo sapiens

<400> 460
gcaggtataa catgctgcaa caacagatgt gactaggaac ggccggtgac atggggaggg 60
cctatcaccc tattcttggg ggctgcttct tcacagtgat catgaagcct agcagcaaat 120
cccacctccc cacacgcaca cggccagcct ggagcccaca gaaggggtcct cctgcagcca 180
gtggagcttg gtccagcctc cagtccaccc ctaccaggct taaggataga a         231

<210> 461
<211> 231
<212> DNA
<213> Homo sapiens

<400> 461
cgaggtttga gaagctctaa tgtgcagggg agccgagaag caggcggcct agggagggtc 60
gcgtgtgctc cagaagagtg tgtgcatgcc agagggaaa caggcgcctg tgtgtcctgg 120
gtggggttca gtgaggagtg ggaaattggt tcagcagaac caagccgttg ggtgaataag 180
aggggattc catggcactg atagagccct atagtttcag agctgggaat t         231

<210> 462
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156

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<211> 231
<212> DNA
<213> Homo sapiens

<400> 462
aggtaccctc attgtagcca tgggaaaatt gatgttcagt ggggatcagt gaattaaatg 60
gggtcatgca agtataaaaa ttaaaaaaaa aagacttcat gcccaatctc atatgatgtg 120
gaagaactgt tagagagacc aacagggtag tgggttagag atttccagag tcttacattt 180
tctagaggag gtatttaatt tcttctcact catccagtgt tgtatttagg a       .        231

<210> 463
<211> 231
<212> DNA
<213> Homo sapiens

<400> 463
tactccagcc tggtgacaga gcgagaccct atcaccgccc cccaccccac caaaaaaaaa 60
actgagtaga caggtgtcct cttggcatgg taagtcttaa gtcccctccc agatctgtga 120
catttgacag gtgtcttttc ctctggacct cggtgtcccc atctgagtga gaaaaggcag 180
tggggaggtg gatcttccag tcgaagcggt atagaagccc gtgtgaaaag c       231

<210> 464
<211> 231
<212> DNA
<213> Homo sapiens

<400> 464
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aaggacatca catatgaaga atgtttaagt tggaggtggc aacgtgaatt gcaaacaggg 120
cctgcttcag tgactgtgtg cctgtagtcc cagctactcg ggagtctgtg tgaggccagg 180
ggtgccagcg caccagctag atgctctgta acttctaggc cccattttcc c       231

<210> 465
<211> 231
<212> DNA
<213> Homo sapiens

<400> 465
catgttgttg tagctgtggt aatgctggct gcatctcaga cagggttaac ttcagctcct 60
gtggcaaatt agcaacaaat tctgacatca tatttatggt ttctgtatct ttgttgatga 120
aggatggcac aatttttgct tgtgttcata atatactcag attagttcag ctccatcaga 180
taaactggag acatgcagga cattagggta gtgttgtagc tctggtaatg a       231

<210> 466
<211> 231
<212> DNA
<213> Homo sapiens

<400> 466
caggtacctc tttccattgg atactgtgct agcaagcatg ctctccgggg ttttttttaat 60
ggccttcgaa cagaacttgc cacatacca ggtataatag tttctaacat ttgcccagga 120
cctgtgcaat caaatattgt ggagaattcc ctagctggag aagtcacaaa gactataggc 180
aataatggag accagtccca caagatgaca accagtcgtt gtgtgcggct g       231

<210> 467
<211> 311
<212> DNA
<213> Homo sapiens
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157

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<400> 467
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tggtggcttt tctccttttt catcaagact cctcagcagg gagcccagac cagcctgcac 120
tgtgccttaa cagaaggtct tgagattcta agtgggaatc atttcagtga ctgtcatgtg 180
gcatgggtct ctgcccaagc tcgtaatgag actatagcaa ggcggctgtg ggacgtcagt 240
tgtgacctgc tgggcctccc aatagactaa caggcagtgc cagttggacc caagagaaga 300
ctgcagcaga c                                                       311

<210> 468
<211> 3112
<212> DNA
<213> Homo sapiens

<400> 468
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aagatctgca tggtgggaag gacctgatga tacagagttt gataggagac aattaaaggc 120
tggaaggcac tggatgcctg atgatgaagt ggactttcaa actggggcac tactgaaacg 180
atgggatggc cagagacaca ggagatgagt tggagcaagc tcaataacaa agtggttcaa 240
cgaggacttg gaattgcatg gagctggagc tgaagtttag cccaattgtt tactagttga 300
gtgaatgtgg atgattggat gatcatttct catctctgag cctcaggttc cccatccata 360
aaatgggata cacagtatga tctataaagt gggatatagt atgatctact tcactgggtt 420
atttgaagga tgaattgaga taatttattt caggtgccta gaacaatgcc cagattagta 480
catttggtgg aactgagaaa tggcataaca ccaaatttaa tatatgtcag atgttactat 540
gattatcatt caatctcata gttttgtcat ggcccaattt atcctcactt gtgcctcaac 600
aaattgaact gttaacaaag gaatctctgg tcctgggtaa tggctgagca ccactgagca 660
tttccattcc agttggcttc ttgggtttgc tagctgcatc actagtcatc ttaaataaat 720
gaagttttaa catttctcca gtgatttttt tatctcacct ttgaagatac tatgttatgt 780
gattaaataa agaacttgag aagaacaggt ttcattaaac ataaaatcaa tgtagacgca 840
aattttctgg atgggcaata cttatgttca caggaaatgc tttaaaatat gcagaagata 900
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acctgtgaga ttaaggctct ttgtggggaa ggacaaagat ctgtaaattt acagtttcct 1080
tccaaagcca acgtcgaatt ttgaaacata tcaaagctct tcttcaagac aaataatcta 1140
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aaaacagatc ctgttgtgga tatttatttg aacgggatta cagatttgaa atgaagtcac 1680
aaagtgagca ttaccaatga gaggaaaaca gacgagaaaa tcttgatggc ttcacaagac 1740
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atcatttcat atttctaacc ctcaaaacaa agctgttgta atatctgatc tctacggttc 1920
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gatctgtact gtgacctttc tacactgtag aataacatta ctcattttgt tcaaagaccc 2040
ttcgtgttgc tgcctaatat gtagctgact gtttttccta aggagtgttc tggcccaggg 2100
gatctgtgaa caggctggga agcatctcaa gatctttcca gggttatact tactagcaca 2160
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atatcacagg attaactttt tttttaacc tggaagaatt caatgttaca tgcagctatg 2340
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ctttgtttga ttttttttcc agtataaagt taaaatgctt agccttgtac tgaggctgta 2460
tacagccaca gcctctcccc atccctccag ccttatctgt catcaccatc aacccctccc 2520
atgcacctaa acaaaatcta acttgtaatt ccttgaacat gtcaggcata cattattcct 2580
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158

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tctgcctgag aagctcttcc ttgtctctta aatctagaat gatgtaaagt tttgaataag 2640
ttgactatct tacttcatgc aaagaaggga cacatatgag attcatcatc acatgagaca 2700
gcaaatacta aaagtgtaat ttgattataa gagtttagat aaatatatga aatgcaagag 2760
ccacagaggg aatgtttatg gggcacgttt gtaagcctgg gatgtgaagc aaaggcaggg 2820
aacctcatag tatcttatat aatatacttc atttctctat ctctatcaca atatccaaca 2880
agcttttcac agaattcatg cagtgcaaat ccccaaaggt aaccttttatc catttcatgg 2940
tgagtgcgct ttagaatttt ggcaaatcat actggtcact tatctcaact ttgagatgtg 3000
tttgtccttg tagttaattg aaagaaatag ggcactcttg tgagccactt tagggttcac 3060
tcctggcaat aaagaattta caaagagcaa aaaaaaaaaa aaaaaaaaa aa        3112
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<210> 469
<211> 2229
<212> DNA
<213> Homo sapiens

<400> 469
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tatttctttc aattaactac aaggacaaac acatctcaaa gttgagataa gtgaccagta 120
tgatttgcca aaattctaaa gcgcactcac catgaaatgg ataaaggtta cctttgggga 180
tttgcactgc atgaattctg tgaaaagctt gttggatatt gtgatagaga tagagaaatg 240
aagtatatta tataagatac tatgaggttc cctgcctttg cttcacatcc caggcttaca 300
aacgtgcccc ataaacattc cctctgtggc tcttgcattt catatattta tctaaactct 360
tataatcaaa tacacttttta gtatttgctg tctcatgtga tgatgaatct catatgtgtc 420
ccttctttgc atgaagtaag atagtcaact tattcaaaac tttacatcat tctagattta 480
agagacaagg aagagcttct caggcagaag gaataatgta tgcctgacat gttcaaggaa 540
ttacaagtta gattttgttt aggtgcatgg gaggggttga tggtgatgac agataaggct 600
ggagggatgg ggagaggctg tggctgtata cagcctcagt acaaggctaa gcattttaac 660
tttatactgg aaaaaaaatc aaacaaaggg gagggataaa ggacttagtc atctttgcac 720
tggaaaacaa aatatgtaat taaattccca tagctgcatg taacattgaa ttcttccagg 780
ttaaaaaaaa agttaatcct gtgatattaa tggaatgaca tttttgaggtc ttgagaatgg 840
gcacaaaagt gggaaatgaa tttcagtatg ggcaaagaca ctgaggatga tgttgattag 900
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agatgcttcc cagcctgttc acagatcccc tgggccagaa cactccttag gaaaaacagt 1020
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cagtgtagaa aggtcacagt acagatctgg gaactaaata ttaaaaatga gtgtggctgg 1140
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ttttgagggt tagaaatatg aaatgatttg gttatgaacg cacagtttag gcagcagggc 1260
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tttctaatgt ccttccctca caagcgggac caggcacagg gcgaggctca tcgatgaccc 1560
aagatggcgg ccgggcattt ctcccaggga tctctgtgct tcctttgtg cttcctgtgt 1620
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tgtcatcttg ctgtttctag tgatgttaat tatctccatt tcagcagatg tgtggcctca 1740
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agacaaatgg caaggtgtca gcataccctg aacttgagtt gagagctaca cacaatatta 1860
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agtgcctgac acacaccatt ctcttgaggt cccctctaga gatcccacag gtcatatgac 2040
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ggtcacctga ggtcaggagt tcaagaccag cctggccaat atggtgaaac cccatctcta 2160
ctaaaaatac aaaaattagc tgggcgtgct ggtgcatgcc tgtaatccca gccccaacac 2220
aatggaatt                                                         2229
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<210> 470
<211> 2426
<212> DNA

159

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<213> Homo sapiens

<400> 470
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tcaattaact acaaggacaa acacatctca aagttgagat aagtgaccag tatgatttgc 120
caaaattcta aagcgcactc accatgaaat ggataaaggt tacctttggg gatttgcact 180
gcatgaattc tgtgaaaagc ttgttggata ttgtgataga gatagagaaa tgaagtatat 240
tatataagat actatgaggt tccctgcctt tgcttcacat cccaggctta caaacgtgcc 300
ccataaacat tccctctgtg gctcttgcat ttcatatatt tatctaaact cttataatca 360
aattacactt ttagtatttg ctgtctcatg tgatgatgaa tctcatatgt gtcccttctt 420
tgcatgaagt aagatagtca acttattcaa aactttacat cattctagat ttaagagaca 480
aggaagagct tctcaggcag aaggaataat gtatgcctga catgttcaag gaattacaag 540
ttagattttg tttaggtgca tgggaggggt tgatggtgat gacagataag gctggaggga 600
tggggagagg ctgtggctgt atacagcctc agtacaaggc taagcatttt aactttatac 660
tggaaaaaaa atcaaacaaa ggggaggggat aaaggactta gtcatctttg cactggaaaa 720
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gcggccgggc atttctccca gggatctctg tgcttccttt tgtgcttcct gtgtgtgtgg 1620
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tccgagcatc acaaacaccc tctctgtttc ttcactgggc acagaatttt aatacttatt 1920
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tgacacacac cattctcttg aggtcccctc tagagatccc acaggtcata tgacttcttg 2040
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ctgaggtcag gagttcaaga ccagcctggc caatatggtg aaaccccatc tctactaaaa 2160
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gggtgacggt tttgcccaac acaatg                                      2426

<210> 471
<211> 812
<212> DNA
<213> Homo sapiens

<400> 471
gaacaaaatg agtaatgtta ttctacagtg tagaaaggtc acagtacaga tctgggaact 60
aaatattaaa aatgagtgtg ctggatata tggagaatgt tgggcccaga aggaaccgta 120
gagatcagat attacaacag ctttgtttttg agggttagaa atatgaaatg atttggttat 180
gaacgcacag tttaggcagc agggccagaa tcctgaccct ctgccccgtg gttatctcct 240
ccccagcttg gctgcctcat gtcatcacag tattccattt tgtttgttgc atgtcttgtg 300
aagccatcaa gattttctcg tctgttttcc tctcattggt aatgctcact ttgtgacttc 360
atttcaaatc tgtaatcccg ttcaaataaa tatccacaac aggatctgtt ttcctgccca 420
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160

```
tcctttaagg aacacatcaa ttcattttct aatgtccttc cctcacaagc gggaccaggc 480
acagggcgag gctcatcgat gacccaagat ggcggccggg catttctccc agggatctct 540
gtgcttcctt ttgtgcttcc tgtgtgtgtg gatatttaaa ggggctggaa atgtgcaaaa 600
acatgtcact acttagacat tatattgtca tcttgctgtt ctagtgatg ttaattatct 660
ccatttcagc agatgtgtgg cctcagatgg taaagtcagc agcctttctt atttctcacc 720
tctgtatcat caggtccttc ccaccatgca gatcttcctg gtctccctcg gctgcagcca 780
cacaaatctc ccctctgttt ttctgatgcc ag                              812
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<210> 472
<211> 515
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(515)
<223> n = A,T,C or G

<400> 472
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gttccagaat tattggtcct tgcagcccgg tgaatctcag caagaggaac caccaactga 180
caatcaggat attgaacctg gacaagagag agaaggaaca cctccgatcg aagaacgtaa 240
agtagaaggt gattgccagg aaatggatct ggaaaagact cggagtgagc gtggagatgg 300
ctctgatgta aaagagaaga ctccacctaa tcctaagcat gctaagacta aagaagcagg 360
agatgggcag ccataagtta aaaagaagac aagctgaagc tacacacatg gctgatgtca 420
cattgaaaat gtgactgaaa atttgaaaat tctctcaata aagtttgagt tttctctgaa 480
gaaaaaaaaa naaaaaaaaa aaanaaaaan aaaaa                          515
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<210> 473
<211> 5829
<212> DNA
<213> Homo sapiens

<400> 473
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161

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162

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<213> Homo sapiens

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<210> 475
<211> 2414
<212> DNA
<213> Homo sapiens

<220>

163

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<211> 3434
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<213> Homo sapiens

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164

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<210> 477
<211> 140
<212> PRT
<213> Homo sapiens

165

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            20   25   30
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        35   40   45
His His His Thr His Glu His Thr Asp Thr Leu Pro Tyr Gly His Trp
    50   55   60
His Thr His Cys His Thr Val Thr Trp Thr His Leu His Thr Ile Thr
65   70   75   80
Pro Pro His Thr Leu Pro Val Asp Thr Arg Thr His Arg His Cys His
                85   90   95
Thr Asp Thr Gln Asn Thr Val Thr Arg Arg His His His Ala Asp Thr
            100   105   110
Pro Pro Leu Trp Cys Arg Leu Asn Tyr Pro Ala Gly Gly Thr Ala Val
        115   120   125
Ala Tyr Ser Cys Leu Ser Asp Trp Leu Ser Pro Gln
    130   135   140

<210> 478
<211> 143
<212> PRT
<213> Homo sapiens

<400> 478
Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln
                  5   10   15
Ser His Gly His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr
            20   25   30
Gly Glu Ile Thr Trp Thr His His His Thr Ile Thr Gly Thr Gln Thr
        35   40   45
His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr
    50   55   60
Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr
65   70   75   80
Pro Thr His Cys His Met Asp Thr Gly Thr His Thr Ala Thr Leu Ser
                85   90   95
His Gly His Thr Ser Thr Pro Ser His His His Thr His Cys Leu Trp
            100   105   110
Thr Gln Gly His Thr Asp Thr Val Thr Gln Ile His Lys Thr Leu Ser
        115   120   125
His Gly Asp Ile Thr Met Gln Ile His His His Ser Gly Ala Val
    130   135   140

<210> 479
<211> 222
<212> PRT
<213> Homo sapiens

<400> 479
Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln
                  5   10   15
Ser His Glu His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr
            20   25   30

166

```
Gly Glu Ile Thr Leu Thr His His His Thr Ile Thr Gly Thr Gln Thr
        35                  40                  45
His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr
    50                  55                  60
Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr
65                  70                  75                  80
Pro Thr His Cys His Met Asp Thr Ala Thr His Thr Ala Thr Leu Ser
            85                  90                  95
His Gly His Thr Ser Ile Pro Ser His His His Thr His Cys His Val
            100                 105                 110
Asp Thr Arg Thr His Arg His Cys His Thr Asp Thr Gln Asn Thr Val
        115                 120                 125
Thr Arg Arg His His His Ala Asp Thr Pro Pro His Gly His Ser Thr
    130                 135                 140
Arg His Ser Ala Thr Gln Ile His His His Thr Glu Met Arg Thr His
145                 150                 155                 160
Cys His Thr Asp Thr Thr Thr Ser Leu Pro His Phe His Val Ser Ala
            165                 170                 175
Gly Gly Val Gly Pro Thr Thr Leu Gly Ser Asn Arg Glu Ile Thr Trp
        180                 185                 190
Thr Tyr Ser Glu Gly Lys Ile Phe Phe Tyr Phe Leu Gly Asn Gln Ala
        195                 200                 205
Arg Leu Cys Leu Lys Lys Arg Lys Lys Lys Gln Tyr Thr Val
    210                 215                 220
```

```
<210> 480
<211> 144
<212> PRT
<213> Homo sapiens

<400> 480
Met Glu Pro Tyr Arg Gly Asn Glu Gln Pro Ser Gln Glu Gln Gly Val
                5                   10                  15
Cys Cys Leu Trp Gly Leu Gln Ser Leu Pro Gln Gly Ser Tyr Val Thr
            20                  25                  30
Val Gly Phe Leu Val Val Lys Arg Gln Thr Ile Gly Arg Leu Glu Arg
        35                  40                  45
Asp Phe Met Phe Lys Cys Arg Lys Gln Pro Gly Leu Pro Pro Ser Gly
    50                  55                  60
Leu Cys Leu Leu Trp Pro Trp Pro Asn Leu Glu Phe Gly Arg Arg Gln
65                  70                  75                  80
Asp Arg Leu Thr Trp Ser Ser Val Ser Val Ala Gly Val Cys Ala Cys
            85                  90                  95
Arg Ala Arg Pro Gly Trp Leu Gly Glu Gln Pro Ala Thr Ser Ala Gly
        100                 105                 110
Val Arg Leu Glu Gln Val Glu Gln Pro Pro Ala His Pro Leu Gln Glu
        115                 120                 125
Ala Gly Val Ala Arg Phe Pro Arg Pro Glu Trp Val Pro Pro Asn Gly
    130                 135                 140
```

```
<210> 481
<211> 167
<212> PRT
<213> Homo sapiens

<400> 481
```

167

```
Met His Gly Pro Gln Val Leu Ala Arg Cys Ser Glu Cys Ala Cys Pro
                  5                  10                  15
Ala Leu Ala Ala Thr Ser Ala Gly Val Arg Leu Glu Gly Val Asp Arg
              20                  25                  30
Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys Ser His Ser
          35                  40                  45
Leu Ser Gly Cys His Leu Met Ala Asp Gly Ala Lys Ala Leu Gly Lys
      50                  55                  60
Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr Asp Val Pro
65                  70                  75                  80
Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser Ser Trp Arg
              85                  90                  95
Ala Leu Ala Glu Val Thr Gly Cys Ser Leu Gly Pro Leu Gly Leu Ala
              100                 105                 110
Gln His Ala Gln Ala Ser Val Leu Leu Leu Cys Tyr Lys Trp Ser His
      115                 120                 125
Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr Ala Ala Phe
      130                 135                 140
Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu Trp Ala Ser
145                 150                 155                 160
Trp Leu Ser Arg Gly Arg Pro
                  165
```

<210> 482
<211> 143
<212> PRT
<213> Homo sapiens

<400> 482
```
Met Glu Pro Tyr Arg Gly Asn Lys Lys Gln Val Gln Glu Lys Gly Val
                  5                  10                  15
Pro Cys Leu Trp Gly Ser Ser Pro Cys Leu Arg Cys His Met Ala Leu
              20                  25                  30
Arg Ala Ser Trp Leu Pro Gly Gly Gly Pro Gln Ala Ile Leu Gly Arg
          35                  40                  45
Thr Leu Cys Ser Ser Ala Glu Ser Ser Gln Asp Cys His Pro Gly Gly
      50                  55                  60
Pro Ser Ile Ala Leu Ala Lys Pro Cys Arg Gly Val Trp Leu Leu Phe
65                  70                  75                  80
Glu Pro Ala Trp Pro Pro Trp His Ala Arg Ala Pro Gly Ala Gly Thr
              85                  90                  95
Leu Leu Arg Val Cys Leu Ser Cys Leu Gly Cys His Leu Cys Gly Gly
              100                 105                 110
Ala Ser Gly Gly Gly Gly Pro Ala Thr Asn Leu Thr Gln Ser Arg Lys
      115                 120                 125
Trp Met Ala Met Phe Pro Gln Pro Glu Trp Leu Pro Pro Asp Gly
      130                 135                 140
```

<210> 483
<211> 143
<212> PRT
<213> Homo sapiens

<400> 483
```
Met Glu Thr Gln Arg Gly Asn Lys Gln Arg Ala Gln Glu Gln Gly Val
                  5                  10                  15
Cys Cys Leu Trp Gly Ser Ser Pro Cys Leu Gly Ser Tyr Gly Thr Ala
```

168

```
             20                    25                    30
Gly Phe Leu Val Ala Lys Arg Arg Thr Thr Gly Leu Leu Glu Glu Asp
         35                    40                    45
Phe Thr Phe Lys Cys Arg Lys Gln Pro Lys Leu Pro Ser Met Arg Leu
     50                    55                    60
Ser Leu Leu Trp Pro Trp Arg Asp Leu Lys Phe Val Pro Arg Gln Asp
65                70                75                    80
Lys Leu Thr Arg Ser Ser Val Ser Val Ala Gly Ala Tyr Ala Cys Arg
                 85                    90                    95
Ala Gly Pro Gly Trp Leu Lys Glu Gln Pro Ala Thr Ser Ala Arg Val
             100                   105                   110
Arg Leu Val Gln Ala Glu His Pro Pro Pro His Pro Leu Glu Glu Val
         115                   120                   125
Gly Met Ala Arg Phe Pro Gln Pro Glu Cys Leu Pro Pro Tyr Cys
    130                   135                    140
```

```
        <210> 484
        <211> 30
        <212> PRT
        <213> Homo Sapien

        <400> 484
Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly Phe
1                 5                   10                    15
Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile
             20                    25                    30

        <210> 485
        <211> 31
        <212> DNA
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 485
gggaagctta tcacctatgt gccgcctctg c                                    31

        <210> 486
        <211> 27
        <212> DNA
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 486
gcgaattctc acgctgagta tttggcc                                         27

        <210> 487
        <211> 36
        <212> DNA
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 487
```

169

cccgaattct tagctgccca tccgaacgcc ttcatc   36

      <210> 488
      <211> 33
      <212> DNA
      <213> Artificial Sequence

      <220>
      <223> Made in a lab

      <400> 488
gggaagcttc ttccccggct gcaccagctg tgc   33

      <210> 489
      <211> 19
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> Made in a lab

      <400> 489
Met Asp Arg Leu Val Gln Arg Phe Gly Thr Arg Ala Val Tyr Leu Ala
1   5   10   15
Ser Val Ala

      <210> 490
      <211> 20
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> Made in a lab

      <400> 490
Tyr Leu Ala Ser Val Ala Ala Phe Pro Val Ala Ala Gly Ala Thr Cys
1   5   10   15
Leu Ser His Ser
          20

      <210> 491
      <211> 20
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> Made in a lab

      <400> 491
Thr Cys Leu Ser His Ser Val Ala Val Val Thr Ala Ser Ala Ala Leu
1   5   10   15
Thr Gly Phe Thr
          20

      <210> 492
      <211> 20
      <212> PRT

```
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 492
Ala Leu Thr Gly Phe Thr Phe Ser Ala Leu Gln Ile Leu Pro Tyr Thr
1               5                   10                  15
Leu Ala Ser Leu
            20

        <210> 493
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 493
Tyr Thr Leu Ala Ser Leu Tyr His Arg Glu Lys Gln Val Phe Leu Pro
1               5                   10                  15
Lys Tyr Arg Gly
            20

        <210> 494
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 494
Leu Pro Lys Tyr Arg Gly Asp Thr Gly Gly Ala Ser Ser Glu Asp Ser
1               5                   10                  15
Leu Met Ile Ser
            20

        <210> 495
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 495
Asp Ser Leu Met Thr Ser Phe Leu Pro Gly Pro Lys Pro Gly Ala Pro
1               5                   10                  15
Phe Pro Asn Gly
            20

        <210> 496
        <211> 21
        <212> PRT
        <213> Artificial Sequence
```

171

```
        <220>
        <223> Made in a lab

        <400> 496
Ala Pro Phe Pro Asn Gly His Val Gly Ala Gly Gly Ser Gly Leu Leu
1               5                   10                  15
Pro Pro Pro Pro Ala
                20

        <210> 497
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 497
Leu Leu Pro Pro Pro Pro Ala Leu Cys Gly Ala Ser Ala Cys Asp Val
1               5                   10                  15
Ser Val Arg Val
                20

        <210> 498
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 498
Asp Val Ser Val Arg Val Val Val Gly Glu Pro Thr Glu Ala Arg Val
1               5                   10                  15
Val Pro Gly Arg
                20

        <210> 499
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 499
Arg Val Val Pro Gly Arg Gly Ile Cys Leu Asp Leu Ala Ile Leu Asp
1               5                   10                  15
Ser Ala Phe Leu
                20

        <210> 500
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
```

172

```
        <223> Made in a lab

        <400> 500
Leu Asp Ser Ala Phe Leu Leu Ser Gln Val Ala Pro Ser Leu Phe Met
1               5                   10                  15
Gly Ser Ile Val
            20

        <210> 501
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 501
Phe Met Gly Ser Ile Val Gln Leu Ser Gln Ser Val Thr Ala Tyr Met
1               5                   10                  15
Val Ser Ala Ala
            20

        <210> 502
        <211> 414
        <212> DNA
        <213> Homo Sapien

        <220>
        <221> misc_feature
        <222> (1)...(414)
        <223> n=A,T,C or G

        <400> 502
caccatggag acaggcctgc gctggctttt cctggtcgct gtgctcaaag gtgtccaatg      60
tcagtcggtg gaggagtccg ggggtcgcct ggtcacgcct gggacacctt tgacantcac     120
ctgtagagtt tttggaatng acctcagtag caatgcaatg agctgggtcc gccaggctcc     180
agggaagggg ctggaatgga tcggagccat tgataattgt ccacantacg cgacctgggc     240
gaaaggccga ttnatnattt ccaaaacctn gaccacggtg gatttgaaaa tgaccagtcc     300
gacaaccgag gacacggcca cctatttttg tggcagaatg aatactggta atagtggttg     360
gaagaatatt tggggcccag gcaccctggt caccgtntcc tcagggcaac ctaa           414

        <210> 503
        <211> 379
        <212> DNA
        <213> Homo Sapien

        <220>
        <221> misc_feature
        <222> (1)...(379)
        <223> n=A,T,C or G

        <400> 503
atncgatggt gcttggtcaa aggtgtccag tgtcagtcgg tggaggagtc cggggggtcgc     60
ctggtcacgc ctgggacacc cctgacactc acctgcaccg tntctggatt ngacatcagt     120
agctatggag tgagctgggt ccgccaggct ccaggaaagg ggctggnata catcggatca     180
ttagtagtag tggtacattt tacgcgagct gggcgaaagg ccgattcacc atttccaaaa     240
cctngaccac ggtggatttg aaaatcacca gtttgacaac cgaggacacg gccacctatt     300
tntgtgccag agggggggttt aattataaag acatttgggg cccaggcacc ctggtcaccg     360
```

tntccttagg gcaacctaa   379

  <210> 504
  <211> 19
  <212> PRT
  <213> Artificial Sequence

  <220>
  <223> Made in a lab

  <400> 504
Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp Ser Pro Tyr Phe Lys Glu
1   5   10   15
Asn Ser Ala

  <210> 505
  <211> 20
  <212> PRT
  <213> Artificial Sequence

  <220>
  <223> Made in a lab

  <400> 505
Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn Asp Asn Val Thr
1   5   10   15
Asn Thr Ala Asn
    20

  <210> 506
  <211> 407
  <212> DNA
  <213> Homo Sapien

  <400> 506
atggagacag gcctgcgctg gcttctcctg gtcgctgcgc tcaaaggtgt ccagtgtcag   60
tcgctggagg agtccggggg tcgcctggtc acgcctggga cacccctgac actcacctgc   120
accgtctctg gattctccct cagtagcaat gcaatgatct gggtccgcca ggctccaggg   180
aaggggctgg aatacatcgg atacattagt tatggtggta gcgcatacta cgcgagctgg   240
gtgaaaggcc gattcaccat ctccaaaacc tcgaccacgg tggatctgag aatgaccagt   300
ctgacaaccg aggacacggc cacctatttc tgtgccagaa atagtgattt tagtggtatg   360
ttgtggggcc caggcaccct ggtcaccgtc tcctcagggc aacctaa   407

  <210> 507
  <211> 422
  <212> DNA
  <213> Homo Sapien

  <400> 507
atggagacag gcctgcgctg gcttctcctg gtcgctgtgc tcaaaggtgt ccagtgtcag   60
tcggtggagg agtccggggg tcgcctggtc acgcctggga cacccctgac actcacctgt   120
acagtctctg gattctccct cagcaactac gacctgaact gggtccgcca ggctccaggg   180
aaggggctgg aatggatcgg gatcattaat tatgttggta ggacggacta cgcgaactgg   240
gcaaaaggcc ggttcaccat ctccaaaacc tcgaccaccg tggatctcaa gatcgccagt   300
ccgacaaccg aggacacggc cacctatttc tgtgccagag ggtggaagtg cgatgagtct   360
ggtccgtgct tgcgcatctg gggcccaggc accctggtca ccgtctcctt agggcaacct   420

174

```
aa                                                                      422

     <210> 508
     <211> 411
     <212> DNA
     <213> Homo Sapien

     <220>
     <221> misc_feature
     <222> (1)...(411)
     <223> n=A,T,C or G

     <400> 508
atggagacag gcctcgctgg cttctcctgg tcgctgtgct caaaggtgtc cagtgtcagt        60
cggtggagga gtccgggggt cgcctggtca cgcctgggac acccctgaca ctcacctgca       120
cagtctctgg aatcgacctc agtagctact gcatgagctg ggtccgccag gctccaggga       180
aggggctgga atggatcgga atcattggta ctcctggtga cacatactac gcgaggtggg       240
cgaaaggccg attcaccatc tccaaaacct cgaccacggt gcatntgaaa atcnccagtc       300
cgacaaccga ggacacggcc acctatttct gtgccagaga tcttcgggat ggtagtagta       360
ctggttatta taaaatctgg ggcccaggca ccctggtcac cgtctccttg g               411

     <210> 509
     <211> 15
     <212> PRT
     <213> Artificial Sequence

     <220>
     <223> Made in a lab

     <400> 509
Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
1               5                   10                  15

     <210> 510
     <211> 15
     <212> PRT
     <213> Artificial Sequence

     <220>
     <223> Made in a lab

     <400> 510
Pro Glu Tyr Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu Ile
1               5                   10                  15

     <210> 511
     <211> 15
     <212> PRT
     <213> Artificial Sequence

     <220>
     <223> Made in a lab

     <400> 511

Tyr His Pro Ser Met Phe Cys Ala Gly Gly Gly Gln Asp Gln Lys
1               5                   10                  15
```

175

```
        <210> 512
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 512
Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu
 1               5               10                  15

        <210> 513
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 513
Ala Pro Cys Gly Gln Val Gly Val Pro Asx Val Tyr Thr Asn Leu
 1               5               10                  15

        <210> 514
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 514
Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
 1               5               10                  15

        <210> 515
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 515
Met Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg
 1               5               10                  15

        <210> 516
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 516
Val Ser Glu Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln
```

176

```
 1                    5                    10                    15

        <210> 517
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 517
Glu Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met
 1                    5                    10                    15

        <210> 518
        <211> 15
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 518
Arg Ala Glu Pro Gly Thr Glu Ala Arg Arg His Tyr Asp Glu Gly
 1                    5                    10                    15

        <210> 519
        <211> 17
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 519
Arg Ala Glu Pro Gly Thr Glu Ala Arg Arg Asn Tyr Asp Glu Gly Cys
 1                    5                    10                    15
Gly


        <210> 520
        <211> 25
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 520
Val Gly Glu Gly Leu Tyr Gln Gly Val Pro Arg Ala Glu Pro Gly Thr
 1                    5                    10                    15
Glu Ala Arg Arg His Tyr Asp Glu Gly
            20                    25

        <210> 521
        <211> 21
        <212> PRT
        <213> Artificial Sequence
```

177

```
        <220>
        <223> Made in a lab

        <400> 521
Ala Pro Phe Pro Asn Gly His Val Gly Ala Gly Gly Ser Gly Leu Leu
1               5                   10                  15
Pro Pro Pro Pro Ala
            20


        <210> 522
        <211> 20
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <400> 522
Leu Leu Val Val Pro Ala Ile Lys Lys Asp Tyr Gly Ser Gln Glu Asp
1               5                   10                  15
Phe Thr Gln Val
            20


        <210> 523
        <211> 254
        <212> PRT
        <213> Artificial Sequence

        <220>
        <223> Made in a lab

        <220>
        <221> VARIANT
        <222> (1)...(254)
        <223> Xaa = any amino acid

        <400> 523
Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
1               5                   10                  15
Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
            20                  25                  30
Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
        35                  40                  45
Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
    50                  55                  60
Trp Val Leu Ser Ala Thr His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
65                  70                  75                  80
Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
                85                  90                  95
Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
            100                 105                 110
Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
        115                 120                 125
Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
    130                 135                 140
Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
145                 150                 155                 160
```

178


```
Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
              165                 170                 175
Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
              180                 185                 190
Ala Gly Gly Gly Gln Xaa Gln Xaa Asp Ser Cys Asn Gly Asp Ser Gly
              195                 200                 205
Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
       210                 215                 220
Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
225                 230                 235                 240
Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
              245                 250
```

```
<210> 524
<211> 765
<212> DNA
<213> Homo sapien
```

```
<400> 524
atggccacag caggaaatcc ctggggctgg ttcctggggt acctcatcct tggtgtcgca          60
ggatcgctcg tctctggtag ctgcagccaa atcataaacg gcgaggactg cagcccgcac         120
tcgcagccct ggcaggcggc actggtcatg gaaaacgaat tgttctgctc gggcgtcctg         180
gtgcatccgc agtgggtgct gtcagccgca cactgtttcc agaactccta caccatcggg         240
ctgggcctgc acagtcttga ggccgaccaa gagccaggga ccagatggt ggaggccagc          300
ctctccgtac ggcacccaga gtacaacaga cccttgctcg ctaacgacct catgctcatc         360
aagttggacg aatccgtgtc cgagtctgac accatccgga gcatcagcat tgcttcgcag         420
tgccctaccg cggggaactc ttgcctcgtt tctggctggg gtctgctggc gaacggcaga         480
atgcctaccg tgctgcagtg cgtgaacgtg tcggtggtgt ctgaggaggt ctgcagtaag         540
ctctatgacc cgctgtacca ccccagcatg ttctgcgccg gcggagggca agaccagaag         600
gactcctgca cggtgactc tggggggccc.ctgatctgca acgggtactt gcagggcctt         660
gtgtctttcg gaaaagcccc gtgtggccaa gttggcgtgc caggtgtcta caccaacctc         720
tgcaaattca ctgagtggat agagaaaacc gtccaggcca gttaa                        765
```

```
<210> 525
<211> 254
<212> PRT
<213> Homo sapien
```

```
<400> 525
Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
  1             5                  10                  15
Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
              20                  25                  30
Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
              35                  40                  45
Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
       50                  55                  60
Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
65                  70                  75                  80
Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
              85                  90                  95
Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
              100                 105                 110
Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
              115                 120                 125
Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
       130                 135                 140
Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
```

179

```
145                      150                      155                      160
Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
                 165                      170                      175
Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
             180                      185                      190
Ala Gly Gly Gly Gln Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly
         195                      200                      205
Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
     210                      215                      220
Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
225                      230                      235                      240
Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
                 245                      250
```

```
<210> 526
<211> 963
<212> DNA
<213> Homo sapiens

<400> 526
atgagttcct gcaacttcac acatgccacc tttgtgctta ttggtatccc aggattagag 60
aaagcccatt tctgggttgg cttccccctc ctttccatgt atgtagtggc aatgtttgga 120
aactgcatcg tggtcttcat cgtaaggacg gaacgcagcc tgcacgctcc gatgtacctc 180
tttctctgca tgcttgcagc cattgacctg gccttatcca tccaccat gcctaagatc 240
cttgcccttt tctggtttga ttcccgagag attagctttg aggcctgtct tacccagatg 300
ttctttattc atgccctctc agccattgaa tccaccatcc tgctggccat ggcctttgac 360
cgttatgtgg ccatctgcca cccactgcgc catgctgcag tgctcaacaa tacagtaaca 420
gcccagattg gcatcgtggc tgtggtccgc ggatccctct ttttttttccc actgcctctg 480
ctgatcaagc ggctggcctt ctgccactcc aatgtcctct cgcactccta ttgtgtccac 540
caggatgtaa tgaagttggc ctatgcagac actttgccca atgtggtata tggtcttact 600
gccattctgc tggtcatggg cgtggacgta atgttcatct ccttgtccta ttttctgata 660
atacgaacgg ttctgcaact gccttccaag tcagagcggg ccaaggcctt tggaacctgt 720
gtgtcacaca ttggtgtggt actcgccttc tatgtgccac ttattggcct ctcagttgta 780
caccgctttg gaaacagcct tcatcccatt gtgcgtgttg tcatgggtga catctacctg 840
ctgctgcctc ctgtcatcaa tcccatcatc tatggtgcca aaaccaaaca gatcagaaca 900
cgggtgctgg ctatgttcaa gatcagctgt gacaaggact gcaggctgt gggaggcaag 960
tga                                                                   963
```

```
<210> 527
<211> 320
<212> PRT
<213> Homo sapiens

<400> 527
Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile
                 5                       10                      15
Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser
             20                      25                      30
Met Tyr Val Val Ala Met Phe Gly Asn Cys Ile Val Val Phe Ile Val
         35                      40                      45
Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
     50                      55                      60
Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
65                      70                      75                      80
Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Phe Glu Ala Cys
                 85                      90                      95
Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
                 100                     105                     110
```

180

```
Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
        115                 120                 125
Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly
        130                 135                 140
Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu
145                 150                 155                 160
Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
                165                 170                 175
Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu
            180                 185                 190
Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
        195                 200                 205
Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val
    210                 215                 220
Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
225                 230                 235                 240
Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
                245                 250                 255
Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg
            260                 265                 270
Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
        275                 280                 285
Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
    290                 295                 300
Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys
305                 310                 315                 320
```

```
        <210> 528
        <211> 20
        <212> DNA
        <213> Homo Sapien

        <400> 528
    actatggtcc agaggctgtg                                                    20

        <210> 529
        <211> 20
        <212> DNA
        <213> Homo Sapien

        <400> 529
    atcacctatg tgccgcctct                                                    20

<210> 530
<211> 1852
<212> DNA
<213> Homo sapiens

<400> 530
ggcacgagaa ttaaaaccct cagcaaaaca ggcatagaag ggacatacct taaagtaata 60
aaaaccacct atgacaagcc cacagccaac ataatactaa atggggaaaa gttagaagca 120
tttcctctga gaactgcaac aataaaataca aggatgctgg attttgtcaa atgccttttc 180
tgtgtctgtt gagatgctta tgtgactttg cttttaattc tgtttatgtg attatcacat 240
ttattgactt gcctgtgtta gaccggaaga gctggggtgt ttctcaggag ccaccgtgtg 300
ctgcggcagc ttcgggataa cttgaggctg catcactggg gaagaaacac aytcctgtcc 360
gtggcgctga tggctgagga cagagcttca gtgtggcttc tctgcgactg gcttcttcgg 420
ggagttcttc cttcatagtt catccatatg gctccagagg aaaattatat tattttgtta 480
tggatgaaga gtattacgtt gtgcagatat actgcagtgt cttcatctct tgatgtgtga 540
```

181

```
ttgggtaggt tccaccatgt tgccgcagat gacatgattt cagtacctgt gtctggctga 600
aaagtgtttg tttgtgaatg gatattgtgg tttctggatc tcatcctctg tgggtggaca 660
gctttctcca ccttgctgga agtgacctgc tgtccagaag tttgatggct gaggagtata 720
ccatcgtgca tgcatctttc atttcctgca tttcttcctc cctgctggga caggggggagc 780
ggcaagagca acgtgggcac ttctggagac cacaacgact cctctgtgaa gacgcttggg 840
agcaagaggt gcaagtggtg ctgccactgc ttcccctgct gcaggggggag cggcaagagc 900
aacgtggtcg cttggggaga ctacgatgac agcgccttca tggatcccag gtaccacgtc 960
catggagaag atctggacaa gctccacaga gctgcctggt ggggtaaagt ccccagaaag 1020
gatctcatcg tcatgctcag ggacacggat gtgaacaaga gggacaagca aaagaggact 1080
gctctacatc tggcctctgc caatgggaat tcagaagtag taaaactcgt gctggacaga 1140
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tgccaggaag atgaatgtgc gttaatgttg ctggaacatg gcactgatcc aaatattcca 1260
gatgagtatg gaaataccac tctacactat gctgtctaca atgaagataa attaatggcc 1320
aaagcactgc tcttatacgg tgctgatatc gaatcaaaaa acaagcatgg cctcacacca 1380
ctgctacttg gtatacatga gcaaaaacag caagtggtga aattttttaat caagaaaaaa 1440
gcgaatttaa atgcgctgga tagatatgga agaactgctc tcatacttgc tgtatgttgt 1500
ggatcagcaa gtatagtcag ccctctactt gagcaaaatg ttgatgtatc ttctcaagat 1560
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tttctgacta caaagaaaaa cagatgttaa aaatctcttc tgaaaacagc aatccagaac 1680
aagacttaaa gctgacatca gaggaagagt cacaaaggct taaaggaagt gaaaacagcc 1740
agccagagct agaagattta tggctattga agaagaatga agaacacgga agtactcatg 1800
tgggattccc agaaaacctg actaacggtg ccgctgctgg caatggtgat ga        1852
```

<210> 531
<211> 879
<212> DNA
<213> Homo sapiens

<400> 531
```
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aacgtgggca cttctggaga ccacaacgac tcctctgtga gacgcttgg gagcaagagg 120
tgcaagtggt gctgccactg cttcccctgc tgcaggggga gcggcaagag caacgtggtc 180
gcttggggag actacgatga cagcgccttc atggatccca ggtaccacgt ccatggagaa 240
gatctggaca agctccacag agctgcctgg tggggtaaag tccccagaaa ggatctcatc 300
gtcatgctca gggacacgga tgtgaacaag agggacaagc aaaagaggac tgctctacat 360
ctggcctctg ccaatgggaa ttcagaagta gtaaaactcg tgctggacag acgatgtcaa 420
cttaatgtcc ttgacaacaa aaagaggaca gctctgacaa aggccgtaca atgccaggaa 480
gatgaatgtg cgttaatgtt gctggaacat ggcactgatc caaatattcc agatgagtat 540
ggaaatacca ctctacacta tgctgtctac aatgaagata aattaatggc caaagcactg 600
ctcttatacg gtgctgatat cgaatcaaaa aacaagcatg gcctcacacc actgctactt 660
ggtatacatg agcaaaaaca gcaagtggtg aaattttta tcaagaaaaa agcgaattta 720
aatgcgctgg atagatatgg aagaactgct ctcatacttg ctgtatgttg tggatcagca 780
agtatagtca gccctctact tgagcaaaat gttgatgtat cttctcaaga tctggaaaga 840
cggccagaga gtatgctgtt tctagtcatc atcatgtaa                        879
```

<210> 532
<211> 292
<212> PRT
<213> Homo sapiens

<400> 532
```
Met His Leu Ser Phe Pro Ala Phe Leu Pro Pro Trp Met Asp Arg Gly
                5                   10                  15
Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp His Asn Asp Ser Ser
            20                  25                  30
Val Lys Thr Leu Gly Ser Lys Arg Cys Lys Trp Cys Cys His Cys Phe
        35                  40                  45
Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val Val Ala Trp Gly Asp
```

```
          50                      55                      60
Tyr Asp Asp Ser Ala Phe Met Asp Pro Arg Tyr His Val His Gly Glu
 65                      70                      75                      80
Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg
                 85                      90                      95
Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Arg Asp
                100                     105                     110
Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser
            115                     120                     125
Glu Val Val Lys Leu Val Leu Asp Arg Arg Cys Gln Leu Asn Val Leu
        130                     135                     140
Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala Val Gln Cys Gln Glu
145                     150                     155                     160
Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile
                165                     170                     175
Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Val Tyr Asn Glu
                180                     185                     190
Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu
            195                     200                     205
Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Ile His Glu
        210                     215                     220
Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu
225                     230                     235                     240
Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys
                245                     250                     255
Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu Glu Gln Asn Val Asp
            260                     265                     270
Val Ser Ser Gln Asp Leu Glu Arg Arg Pro Glu Ser Met Leu Phe Leu
        275                     280                     285
Val Ile Ile Met
        290
```

```
<210> 533
<211> 801
<212> DNA
<213> Homo sapiens

<400> 533
atgtacaagc ttcagtgcaa caactgtgct acaaatggag ccacagagag gaaacaagca 60
gcaggctcag gagcagggta tgcgctgcct tcggctctcc aatccatgcc tcagggctcc 120
tatgccactg cacgattctt ggttgccaag aggccaacca caggccatct tgagaaggag 180
tttatgttcc actgcagaaa gcagccagga tcaccatcca ggggacttgg tcttctgtgg 240
ccctggccag acatagaatt tgtgccaagg caggacaagc tcactcagag cagcgtgtta 300
gtacctcaaa tctgtgcgtg ccagacaagg ccaaactggc tcaatgagca accagccacc 360
tctgcagggg tgcgtctgga ggaggtggac cagccaccaa ccttacccag tcaaggaagt 420
ggatggccat gttcccacag cctgagtggc tgccacctga tggctgatat agcaaaggcc 480
ttaggaaaag cagatggccc ttggccctac ctttttgtta gaagaactga tgttccatgt 540
cctgcagcga gtgaggttgg tggctgtgcc cccagctcct ggcacaccct cgcagaggtg 600
actggttgct ctttgagccc tcttagcctt gcccagcatg cacaagcctc agtgctacta 660
ctgtgctaca aatggagcca tagggggaa acgagcagcc atctcaggag caaggtgtat 720
gctgcctttg ggggctccag tccttgcctc aagggtctta tgtcactgtg ggcttcttgg 780
ttgccaagag gcagaccata g                                            801

<210> 534
<211> 266
<212> PRT
<213> Homo sapiens
```

<400> 534

```
Met Tyr Lys Leu Gln Cys Asn Asn Cys Ala Thr Asn Gly Ala Thr Glu
            5                   10                  15
Arg Lys Gln Ala Ala Gly Ser Gly Ala Gly Tyr Ala Leu Pro Ser Ala
            20                  25                  30
Leu Gln Ser Met Pro Gln Gly Ser Tyr Ala Thr Ala Arg Phe Leu Val
            35                  40                  45
Ala Lys Arg Pro Thr Thr Gly His Leu Glu Lys Glu Phe Met Phe His
    50                  55                  60
Cys Arg Lys Gln Pro Gly Ser Pro Ser Arg Gly Leu Gly Leu Leu Trp
65                  70                  75                  80
Pro Trp Pro Asp Ile Glu Phe Val Pro Arg Gln Asp Lys Leu Thr Gln
                85                  90                  95
Ser Ser Val Leu Val Pro Gln Ile Cys Ala Cys Gln Thr Arg Pro Asn
            100                 105                 110
Trp Leu Asn Glu Gln Pro Ala Thr Ser Ala Gly Val Arg Leu Glu Glu
            115                 120                 125
Val Asp Gln Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys
    130                 135                 140
Ser His Ser Leu Ser Gly Cys His Leu Met Ala Asp Ile Ala Lys Ala
145                 150                 155                 160
Leu Gly Lys Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr
                165                 170                 175
Asp Val Pro Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser
            180                 185                 190
Ser Trp His Thr Leu Ala Glu Val Thr Gly Cys Ser Leu Ser Pro Leu
            195                 200                 205
Ser Leu Ala Gln His Ala Gln Ala Ser Val Leu Leu Leu Cys Tyr Lys
    210                 215                 220
Trp Ser His Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr
225                 230                 235                 240
Ala Ala Phe Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu
                245                 250                 255
Trp Ala Ser Trp Leu Pro Arg Gly Arg Pro
            260                 265
```

<210> 535
<211> 6082
<212> DNA
<213> Homo sapiens

<400> 535

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cggagcccgc ggccactgcc gcctgatcag cgcgaccccg gcccgcgccc gccccgcccg 180
gcaagatgct gcccgtgtac caggaggtga gcccaaccc gctgcaggac gcgaacctct 240
gctcacgcgt gttcttctgg tggctcaatc ccttgtttaa aattggccat aaacggagat 300
tagaggaaga tgatatgtat tcagtgctgc cagaagaccg ctcacagcac cttggagagg 360
agttgcaagg gttctgggat aaagaagttt taagagctga gaatgacgca cagaagcctt 420
ctttaacaag agcaatcata aagtgttact ggaaatctta tttagttttg ggaattttta 480
cgttaattga ggaaagtgcc aaagtaatcc agcccatatt tttgggaaaa attattaatt 540
attttgaaaa ttatgatccc atggattctg tggctttgaa cacagcgtac gcctatgcca 600
cggtgctgac ttttttgcacg ctcattttgg ctatactgca tcacttatat ttttatcacg 660
ttcagtgtgc tgggatgagg ttacgagtag ccatgtgcca tatgatttat cggaaggcac 720
ttcgtcttag taacatggcc atggggaaga caaccacagg ccagatagtc aatctgctgt 780
ccaatgatgt gaacaagttt gatcaggtga cagtgttctt acacttcctg tgggcaggac 840
```

184

```
cactgcaggc gatcgcagtg actgccctac tctggatgga gataggaata tcgtgccttg 900
ctgggatggc agttctaatc attctcctgc ccttgcaaag ctgttttggg aagttgttct 960
catcactgag gagtaaaact gcaactttca cggatgccag gatcaggacc atgaatgaag 1020
ttataactgg tataaggata ataaaaatgt acgcctggga aaagtcattt tcaaatctta 1080
ttaccaattt gagaaagaag gagatttcca agattctgag aagttcctgc ctcaggggga 1140
tgaatttggc ttcgtttttc agtgcaagca aaatcatcgt gtttgtgacc ttcaccacct 1200
acgtgctcct cggcagtgtg atcacagcca gccgcgtgtt cgtggcagtg acgctgtatg 1260
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accgtcagct gccgtcagat ggtaaaaaga tggtgcatgt gcaggatttt actgcttttt 1440
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ctcagcagcc ctgggtgttc tcgggaactc tgaggagtaa tatttta
 ttt gggaagaaat 1680
acgaaaagga acgatatgaa aaagtcataa aggcttgtgc tctgaaaaag gatttacagc 1740
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caaacaaaca aagtatgcta aatgtgcactg taaatggagg aggaaatgta accgagaagc 2460
tagatcttaa ctggtactta ggaatttatt caggtttaac tgtagctacc gttctttttg 2520
gcatagcaag atctctattg gtattctacg tccttgttaa ctcttcacaa actttgcaca 2580
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ctggaaaaag ttccctcatc tcagcccttt ttagattgtc agaacccgaa ggtaaaattt 3480
ggattgataa gatcttgaca actgaaattg gacttcacga tttaaggaag aaaatgtcaa 3540
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tattttcgag acagcactgt gaatccaacc aaaatgtcaa gtccgttccg aaggcatttg 4200
ccactagttt ttggactatg taaaccacat tgtacttttt tttactttgg caacaaatat 4260
ttatacatac aagatgctag ttcatttgaa tatttctccc aacttatcca aggatctcca 4320
```

185

```
gctctaacaa aatggtttat ttttatttaa atgtcaatag ttgttttta aaatccaaat 4380
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gagtcaaagc tcatttttaa aggagtagga cagagttgtc acaggttttt gttgttgttt 4500
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<210> 536
<211> 6140
<212> DNA
<213> Homo sapiens

<220>
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<400> 536
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186

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187

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<210> 537
<211> 1228
<212> PRT
<213> Homo sapiens

<400> 537
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Asn Leu Cys Ser Arg Val Phe Phe Trp Trp Leu Asn Pro Leu Phe Lys
              20                  25                  30
Ile Gly His Lys Arg Arg Leu Glu Glu Asp Asp Met Tyr Ser Val Leu
          35                  40                  45
Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu Leu Gln Gly Phe Trp
      50                  55                  60
Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala Gln Lys Pro Ser Leu
  65                  70                  75                  80
Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser Tyr Leu Val Leu Gly
                  85                  90                  95
Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val Ile Gln Pro Ile Phe
              100                 105                 110
Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr Asp Pro Met Asp Ser
          115                 120                 125
Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr Val Leu Thr Phe Cys
      130                 135                 140
Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr Phe Tyr His Val Gln
145                 150                 155                 160
Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys His Met Ile Tyr Arg
                  165                 170                 175
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188

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Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly Lys Thr Thr Thr Gly
        180                 185                 190
Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn Lys Phe Asp Gln Val
        195                 200                 205
Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro Leu Gln Ala Ile Ala
        210                 215                 220
Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile Ser Cys Leu Ala Gly
225                 230                 235                 240
Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln Ser Cys Phe Gly Lys
                245                 250                 255
Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr Phe Thr Asp Ala Arg
                260                 265                 270
Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile Arg Ile Ile Lys Met
        275                 280                 285
Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile Thr Asn Leu Arg Lys
        290                 295                 300
Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys Leu Arg Gly Met Asn
305                 310                 315                 320
Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile Val Phe Val Thr Phe
                325                 330                 335
Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr Ala Ser Arg Val Phe
                340                 345                 350
Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu Thr Val Thr Leu Phe
        355                 360                 365
Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala Ile Val Ser Ile Arg
        370                 375                 380
Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile Ser Gln Arg Asn Arg
385                 390                 395                 400
Gln Leu Pro Ser Asp Gly Lys Lys Met Val His Val Gln Asp Phe Thr
                405                 410                 415
Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr Leu Gln Gly Leu Ser
                420                 425                 430
Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val Val Gly Pro Val Gly
        435                 440                 445
Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu Gly Glu Leu Ala Pro
        450                 455                 460
Ser His Gly Leu Val Ser Val His Gly Arg Ile Ala Tyr Val Ser Gln
465                 470                 475                 480
Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly
                485                 490                 495
Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala
                500                 505                 510
Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile
        515                 520                 525
Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn
        530                 535                 540
Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp
545                 550                 555                 560
Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu Leu
                565                 570                 575
Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val Thr His
                580                 585                 590
Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile Leu Lys Asp
        595                 600                 605
Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe Leu Lys Ser Gly
        610                 615                 620
Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn Glu Glu Ser Glu Gln
625                 630                 635                 640
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189

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Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn Arg Thr Phe Ser Glu
            645              650                   655
Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro Ser Leu Lys Asp Gly
            660              665                   670
Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro Val Thr Leu Ser Glu
            675              680                   685
Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln Ala Tyr Lys Asn Tyr
        690              695              700
Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile Phe Leu Ile Leu Leu
705              710              715                   720
Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln Asp Trp Trp Leu Ser
            725              730                   735
Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val Thr Val Asn Gly Gly
            740              745                   750
Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp Tyr Leu Gly Ile Tyr
            755              760                   765
Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly Ile Ala Arg Ser Leu
            770              775              780
Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln Thr Leu His Asn Lys
785              790              795                   800
Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu Phe Phe Asp Arg Asn
            805              810                   815
Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys Asp Ile Gly His Leu
            820              825              830
Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe Ile Gln Thr Leu Leu
            835              840              845
Gln Val Gly Val Val Ser Val Ala Val Ala Val Ile Pro Trp Ile
            850              855              860
Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe Ile Phe Leu Arg Arg
865              870              875                   880
Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg Leu Glu Ser Thr Thr
            885              890              895
Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser Leu Gln Gly Leu Trp
            900              905              910
Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys Gln Glu Leu Phe Asp
            915              920              925
Ala His Gln Asp Leu His Ser Glu Ala Trp Phe Leu Phe Leu Thr Thr
            930              935              940
Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile Cys Ala Met Phe Val
945              950              955                   960
Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala Lys Thr Leu Asp Ala
            965              970                   975
Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu Thr Leu Met Gly Met
            980              985              990
Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val Glu Asn Met Met Ile
            995              1000             1005
Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu Glu Lys Glu Ala Pro
    1010             1015                 1020
Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp Pro His Glu Gly Val
1025             1030                 1035                 1040
Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser Pro Gly Gly Pro Leu
            1045             1050                 1055
Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser Gln Glu Lys Val Gly
            1060             1065                 1070
Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Ile Ser Ala Leu
        1075             1080             1085
Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp Ile Asp Lys Ile Leu
    1090             1095                 1100
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190

Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys Lys Met Ser Ile Ile
1105   1110   1115   1120
Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met Arg Lys Asn Leu Asp
            1125   1130   1135
Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp Asn Ala Leu Gln Glu
            1140   1145   1150
Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro Gly Lys Met Asp Thr
        1155   1160   1165
Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val Gly Gln Arg Gln Leu
    1170   1175   1180
Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn Gln Ile Leu Ile Ile
1185   1190   1195   1200
Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr Asp Glu Leu Ile Gln
                1205   1210   1215
Lys Lys Ser Gly Arg Asn Leu Pro Thr Ala Pro Cys
            1220   1225

<210> 538
<211> 1261
<212> PRT
<213> Homo sapiens

<400> 538
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            20   25   30
Gln Lys Pro Ser Leu Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser
        35   40   45
Tyr Leu Val Leu Gly Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val
    50   55   60
Ile Gln Pro Ile Phe Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr
65   70   75   80
Asp Pro Met Asp Ser Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr
                85   90   95
Val Leu Thr Phe Cys Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr
            100   105   110
Phe Tyr His Val Gln Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys
        115   120   125
His Met Ile Tyr Arg Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly
    130   135   140
Lys Thr Thr Thr Gly Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn
145   150   155   160
Lys Phe Asp Gln Val Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro
                165   170   175
Leu Gln Ala Ile Ala Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile
            180   185   190
Ser Cys Leu Ala Gly Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln
        195   200   205
Ser Cys Phe Gly Lys Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr
    210   215   220
Phe Thr Asp Ala Arg Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile
225   230   235   240
Arg Ile Ile Lys Met Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile
                245   250   255
Thr Asn Leu Arg Lys Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys
            260   265   270
Leu Arg Gly Met Asn Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile

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                275                    280                    285
Val Phe Val Thr Phe Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr
    290                    295                    300
Ala Ser Arg Val Phe Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu
305                    310                    315                    320
Thr Val Thr Leu Phe Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala
                325                    330                    335
Ile Val Ser Ile Arg Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile
                340                    345                    350
Ser Gln Arg Asn Arg Gln Leu Pro Ser Asp Gly Lys Lys Met Val His
                355                    360                    365
Val Gln Asp Phe Thr Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr
    370                    375                    380
Leu Gln Gly Leu Ser Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val
385                    390                    395                    400
Val Gly Pro Val Gly Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu
                405                    410                    415
Gly Glu Leu Ala Pro Ser His Gly Leu Val Ser Val His Gly Arg Ile
                420                    425                    430
Ala Tyr Val Ser Gln Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser
                435                    440                    445
Asn Ile Leu Phe Gly Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val
                450                    455                    460
Ile Lys Ala Cys Ala Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly
465                    470                    475                    480
Asp Leu Thr Val Ile Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln
                485                    490                    495
Lys Ala Arg Val Asn Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile
                500                    505                    510
Tyr Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg
                515                    520                    525
His Leu Phe Glu Leu Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr
                530                    535                    540
Ile Leu Val Thr His Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile
545                    550                    555                    560
Leu Ile Leu Lys Asp Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu
                565                    570                    575
Phe Leu Lys Ser Gly Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn
                580                    585                    590
Glu Glu Ser Glu Gln Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn
                595                    600                    605
Arg Thr Phe Ser Glu Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro
    610                    615                    620
Ser Leu Lys Asp Gly Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro
625                    630                    635                    640
Val Thr Leu Ser Glu Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln
                645                    650                    655
Ala Tyr Lys Asn Tyr Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile
                660                    665                    670
Phe Leu Ile Leu Leu Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln
                675                    680                    685
Asp Trp Trp Leu Ser Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val
    690                    695                    700
Thr Val Asn Gly Gly Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp
705                    710                    715                    720
Tyr Leu Gly Ile Tyr Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly
                725                    730                    735
Ile Ala Arg Ser Leu Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln
```

192

```
                740                745                750
Thr Leu His Asn Lys Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu
        755                760                765
Phe Phe Asp Arg Asn Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys
    770                775                780
Asp Ile Gly His Leu Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe
785                790                795                800
Ile Gln Thr Leu Leu Gln Val Val Gly Val Val Ser Val Ala Val Ala
                805                810                815
Val Ile Pro Trp Ile Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe
        820                825                830
Ile Phe Leu Arg Arg Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg
        835                840                845
Leu Glu Ser Thr Thr Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser
    850                855                860
Leu Gln Gly Leu Trp Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys
865                870                875                880
Gln Glu Leu Phe Asp Ala His Gln Asp Leu His Ser Glu Ala Trp Phe
            885                890                895
Leu Phe Leu Thr Thr Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile
        900                905                910
Cys Ala Met Phe Val Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala
        915                920                925
Lys Thr Leu Asp Ala Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu
    930                935                940
Thr Leu Met Gly Met Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val
945                950                955                960
Glu Asn Met Met Ile Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu
                965                970                975
Glu Lys Glu Ala Pro Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp
            980                985                990
Pro His Glu Gly Val Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser
        995                1000                1005
Pro Gly Gly Pro Leu Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser
    1010                1015                1020
Gln Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser
1025                1030                1035                1040
Leu Ile Ser Ala Leu Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp
            1045                1050                1055
Ile Asp Lys Ile Leu Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys
        1060                1065                1070
Lys Met Ser Ile Ile Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met
        1075                1080                1085
Arg Lys Asn Leu Asp Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp
    1090                1095                1100
Asn Ala Leu Gln Glu Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro
1105                1110                1115                1120
Gly Lys Met Asp Thr Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val
            1125                1130                1135
Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn
        1140                1145                1150
Gln Ile Leu Ile Ile Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr
    1155                1160                1165
Asp Glu Leu Ile Gln Lys Lys Ile Arg Glu Lys Phe Ala His Cys Thr
    1170                1175                1180
Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Ile Asp Ser Asp Lys
1185                1190                1195                1200
Ile Met Val Leu Asp Ser Gly Arg Leu Lys Glu Tyr Asp Glu Pro Tyr
```

193

```
                          1205                  1210                1215
Val Leu Leu Gln Asn Lys Glu Ser Leu Phe Tyr Lys Met Val Gln Gln
            1220                  1225                1230
Leu Gly Lys Ala Glu Ala Ala Ala Leu Thr Glu Thr Ala Lys Gln Arg
        1235                  1240                1245
Trp Gly Phe Thr Met Leu Ala Arg Leu Val Ser Asn Ser
    1250                  1255                1260
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<210> 539
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in a lab

<400> 539
Cys Leu Ser His Ser Val Ala Val Val Thr
  1               5                10


<210> 540
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in a lab

<400> 540
Ala Val Val Thr Ala Ser Ala Ala Leu
  1               5


<210> 541
<211> 14
<212> PRT
<213> Homo sapiens

<400> 541
Leu Ala Gly Leu Leu Cys Pro Asp Pro Arg Pro Leu Glu Leu
                  5                 10


<210> 542
<211> 15
<212> PRT
<213> Homo sapiens

<400> 542
Thr Gln Val Val Phe Asp Lys Ser Asp Leu Ala Lys Tyr Ser Ala
                  5                 10                15


<210> 543
<211> 12
<212> PRT
<213> Homo sapiens

<400> 543
Phe Met Gly Ser Ile Val Gln Leu Ser Gln Ser Val
                  5                 10
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194

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<210> 544
<211> 18
<212> PRT
<213> Homo sapiens

<400> 544
Thr Tyr Val Pro Pro Leu Leu Leu Glu Val Gly Val Glu Glu Lys Phe
                  5                   10                  15
Met Thr


<210> 545
<211> 18
<212> PRT
<213> Homo sapiens

<400> 545
Met Asp Arg Leu Val Gln Arg Phe Gly Thr Arg Ala Val Tyr Leu Ala
                  5                   10                  15
Ser Val


<210> 546
<211> 29
<212> PRT
<213> Homo sapiens

<400> 546
Phe Val Gly Glu Gly Leu Tyr Gln Gly Val Pro Arg Ala Glu Pro Gly
                  5                   10                  15
Thr Glu Ala Arg Arg His Tyr Asp Glu Gly Val Arg Met
             20                   25


<210> 547
<211> 58
<212> PRT
<213> Homo·sapiens

<400> 547
Val Ala Glu Glu Ala Ala Leu Gly Pro Thr Glu Pro Ala Glu Gly Leu
                  5                   10                  15
Ser Ala Pro Ser Leu Ser Pro His Cys Cys Pro Cys Arg Ala Arg Leu
             20                   25                   30
Ala Phe Arg Asn Leu Gly Ala Leu Leu Pro Arg Leu His Gln Leu Cys
         35                   40                   45
Cys Arg Met Pro Arg Thr Leu Arg Arg Leu
     50                   55


<210> 548
<211> 18
<212> PRT
<213> Homo sapiens

<400> 548
Ile Asp Trp Asp Thr Ser Ala Leu Ala Pro Tyr Leu Gly Thr Gln Glu
```

195


```
                       5              10              15
Glu Cys


<210> 549
<211> 18
<212> PRT
<213> Homo sapiens


<400> 549
Leu Glu Ala Leu Leu Ser Asp Leu Phe Arg Asp Pro Asp His Cys Arg
                 5              10              15
Gln Ala


<210> 550
<211> 14
<212> PRT
<213> Homo sapiens


<400> 550
Ser Asp His Trp Arg Gly Arg Tyr Gly Arg Arg Arg Pro Phe
                 5              10


    <210> 551
    <211> 11
    <212> PRT
    <213> Artificial Sequence


    <220>
    <223> Made in a lab


    <400> 551
  Phe Asp Lys Ser Asp Leu Ala Lys Tyr Ser Ala
               5              10


<210> 552
<211> 2577
<212> DNA
<213> Homo sapiens


<400> 552
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agtttttttat ctatggtaga accacccaga gcaggggtcc tcaactccca ggccacagac 120
tcataccagt ccacggacta ttatgaacca caccacacag gaggaggtga gcactaggca 180
agccaaggaa gcttcacctg tacttacagc cacacgccat ggctcatatt acagcctgaa 240
ctctgcctcc actcagatca gtgataacat tagaaactca ttggagcacg aaccctgttg 300
tgaactgcct atccgaagga tctaggttgt gtgcttcgta tgagaatcta atgccagatg 360
atctatcatt gtctcacttt gccccagat aagaccatct agttgcagaa aaataagctc 420
agagcttcca ctgattctac attatggata tgtgccgccg aagcaagcac aaagccctac 480
ttttacacat gcctagtgat gcttcatgga caaggcttgg ctctgttgag tccaactaac 540
ctacctgaga ttctgagatt tctcttcaat ggcttcctgt gagctagagt ttgaaaatat 600
cttaaaatct tgagctagag atggaagtag cttggacgat tttcattatc atgtaaatcg 660
ggtcactcaa ggggccaacc acagctggga gccactgctc aggggaaggt tcatatggga 720
ctttctactg cccaaggttc tatacaggat ataaaggtgc ctcacagtat agatctggta 780
gcaaagaaga agaaacaaac actgatctct ttctgccacc cctctgaccc tttggaactc 840
ctctgaccct ttagaacaag cctacctaat atctgctaga gaaaagacca caacggcct 900
caaaggatct cttaccatga aggtctcagc taattcttgg ctaagatgtg ggttccacat 960
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196

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taggttctga atatggggggg aagggtcaat ttgctcattt tgtgtgtgga taaagtcagg 1020
atgcccaggg gccagagcag ggggctgctg ctttgggaac aatggctgag catataacca 1080
taggtatggg aacaaaaaac atcaaagtca ctgtatcaat tgccatgaag actcgaggga 1140
cctgaatcta ccgattcatc ttaaggcagc aggaccagtt tgagtggcaa caatgcagca 1200
gcagaatcaa tggaaacaac agaatgattg caatgtcctt tttttctcc tccttctgac 1260
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aggagtatct aggacatagt ccccagaaga cagtacaaga ctttctgata aactggacat 1380
ttcaagrccc aaataactaa tcagaaaaat caaagatgtg atactatttt ttatcccatg 1440
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aaagtcctga gataaagaat cctgcaccca ctggtacttc taacttgtct tgttttttgt 1560
ctgwtttctg gctgatgcag gggactaact cactgccacg cgaaaactac ctgaactgaa 1620
ctatgacatc tcacctgata tgtaagatgt aactgttata attattttaa acctcaattt 1680
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aacatcttgc ctgtccgtgc agaatcaaac atttacatgc actaaaagac ataagcatct 1980
tcagtgctca agtgttcatc tttgtaaaat accaccaagg ttaaaaggaa gggacaaaaa 2040
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tatgacaaca tatttggtgg taaataacgt tcccaaggtc acacacctag caagtaagaa 2460
agttaggaat taaacccagt attgtgtgaa tctaaagcct aacttttttc tctttatcac 2520
ccacctacgg cttgtcttca ttaaaggaaa agtgtatcca cttaaaaaaa aaaaaaa    2577
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<210> 553
<211> 58
<212> PRT
<213> Homo sapiens

<400> 553
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Ser Ile Cys Asn Met Thr Cys Ala Ser Val Phe Phe Cys Asp Gln Lys
                  5                  10                  15
Phe Leu Thr Phe Ser Phe Leu Ser Met Val Glu Pro Pro Arg Ala Gly
             20                  25                  30
Val Leu Asn Ser Gln Ala Thr Asp Ser Tyr Gln Ser Thr Asp Tyr Tyr
         35                  40                  45
Glu Pro His His Thr Gly Gly Gly Glu His
     50                  55
```

<210> 554
<211> 59
<212> PRT
<213> Homo sapiens

<400> 554
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Leu Gln Lys Asn Lys Leu Arg Ala Ser Thr Asp Ser Thr Leu Trp Ile
                  5                  10                  15
Cys Ala Ala Glu Ala Ser Thr Lys Pro Tyr Phe Tyr Thr Cys Leu Val
             20                  25                  30
Met Leu His Gly Gln Gly Leu Ala Leu Leu Ser Pro Thr Asn Leu Pro
         35                  40                  45
Glu Ile Leu Arg Phe Leu Phe Asn Gly Phe Leu
     50                  55
```

<210> 555
<211> 71
<212> PRT
<213> Homo sapiens

<400> 555
Leu Gly Arg Phe Ser Leu Ser Cys Lys Ser Gly His Ser Arg Gly Gln
                5   10   15
Pro Gln Leu Gly Ala Thr Ala Gln Gly Lys Val His Met Gly Leu Ser
            20   25   30
Thr Ala Gln Gly Ser Ile Gln Asp Ile Lys Val Pro His Ser Ile Asp
        35   40   45
Leu Val Ala Lys Lys Lys Gln Thr Leu Ile Ser Phe Cys His Pro
    50   55   60
Ser Asp Pro Leu Glu Leu Leu
65   70

<210> 556
<211> 81
<212> PRT
<213> Homo sapiens

<400> 556
Asn His Pro Glu Gln Gly Ser Ser Thr Pro Arg Pro Gln Thr His Thr
                5   10   15
Ser Pro Arg Thr Ile Met Asn His Thr Thr Gln Glu Glu Val Ser Thr
            20   25   30
Arg Gln Ala Lys Glu Ala Ser Pro Val Leu Thr Ala Thr Arg His Gly
        35   40   45
Ser Tyr Tyr Ser Leu Asn Ser Ala Ser Thr Gln Ile Ser Asp Asn Ile
    50   55   60
Arg Asn Ser Leu Glu His Glu Pro Cys Cys Glu Leu Pro Ile Arg Arg
65   70   75   80
Ile

<210> 557
<211> 54
<212> PRT
<213> Homo sapiens

<400> 557
Ser Leu Ser Ala Thr Pro Leu Thr Leu Trp Asn Ser Ser Asp Pro Leu
                5   10   15
Glu Gln Ala Tyr Leu Ile Ser Ala Arg Glu Lys Thr Asn Asn Gly Leu
            20   25   30
Lys Gly Ser Leu Thr Met Lys Val Ser Ala Asn Ser Trp Leu Arg Cys
        35   40   45
Gly Phe His Ile Arg Phe
    50

<210> 558
<211> 77
<212> PRT
<213> Homo sapiens

198

<220>
<221> VARIANT
<222> (1)...(77)
<223> Xaa = Any amino acid

<400> 558
Asn Asp Arg Asp Arg Asn Ser Asn Lys Val Ile Xaa Lys Ala Asn Leu
                  5   10   15
Ile Tyr Phe Thr Asn Leu Thr Ser Cys Leu Ser Val Gln Asn Gln Thr
              20   25   30
Phe Thr Cys Thr Lys Arg His Lys His Leu Gln Cys Ser Ser Val His
          35   40   45
Leu Cys Lys Ile Pro Pro Arg Leu Lys Gly Arg Asp Lys Lys Lys Lys
      50   55   60
Pro Ser Tyr Leu Ser Gly Val Leu His Ser Arg Ser Tyr
65   70   75

<210> 559
<211> 50
<212> PRT
<213> Homo sapiens

<400> 559
Thr Leu Pro Pro Leu Arg Ser Val Ile Thr Leu Glu Thr His Trp Ser
                  5   10   15
Thr Asn Pro Val Val Asn Cys Leu Ser Glu Gly Ser Arg Leu Cys Ala
              20   25   30
Ser Tyr Glu Asn Leu Met Pro Asp Asp Leu Ser Leu Ser His Phe Ala
          35   40   45
Pro Arg
      50

<210> 560
<211> 56
<212> PRT
<213> Homo sapiens

<400> 560
Ile Gly Ser Leu Lys Gly Pro Thr Thr Ala Gly Ser His Cys Ser Gly
                  5   10   15
Glu Gly Ser Tyr Gly Thr Phe Tyr Cys Pro Arg Phe Tyr Thr Gly Tyr
              20   25   30
Lys Gly Ala Ser Gln Tyr Arg Ser Gly Ser Lys Glu Glu Glu Thr Asn
          35   40   45
Thr Asp Leu Phe Leu Pro Pro Leu
      50   55

<210> 561
<211> 57
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT

199

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<222> (1)...(57)
<223> Xaa = Any amino acid

<400> 561
Val Leu His Leu Asp Gln Met Asn Asn Val Gly Ile Xaa Met Asp Lys
              5                      10                      15
Gly Leu Lys Ser Pro Glu Ile Lys Asn Pro Ala Pro Thr Gly Thr Ser
              20                      25                      30
Asn Leu Ser Cys Phe Leu Ser Xaa Phe Trp Leu Met Gln Gly Thr Asn
              35                      40                      45
Ser Leu Pro Arg Glu Asn Tyr Leu Asn
        50                      55


<210> 562
<211> 59
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (1)...(59)
<223> Xaa = Any amino acid

<400> 562
Asp Leu Tyr Pro Xaa Arg Ser Gln His Cys Ser Phe Asp Pro Ser Val
              5                      10                      15
Ala Pro Met His Gly Ile Lys Asn Ser Ile Thr Ser Leu Ile Phe Leu
              20                      25                      30
Ile Ser Tyr Leu Xaa Leu Glu Met Ser Ser Leu Ser Glu Ser Leu Val
              35                      40                      45
Leu Ser Ser Gly Asp Tyr Val Leu Asp Thr Pro
        50                      55


<210> 563
<211> 79
<212> PRT
<213> Homo sapiens

<400> 563
Cys Phe Leu Phe Pro Tyr Leu Trp Leu Tyr Ala Gln Pro Leu Phe Pro
              5                      10                      15
Lys Gln Gln Pro Pro Ala Leu Ala Pro Gly His Pro Asp Phe Ile His
              20                      25                      30
Thr Gln Asn Glu Gln Ile Asp Pro Ser Pro His Ile Gln Asn Leu Met
              35                      40                      45
Trp Asn Pro His Leu Ser Gln Glu Leu Ala Glu Thr Phe Met Val Arg
        50                      55                      60
Asp Pro Leu Arg Pro Leu Leu Val Phe Ser Leu Ala Asp Ile Arg
  65                      70                      75


<210> 564
<211> 64
<212> PRT
<213> Homo sapiens

<400> 564
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200

Ala Cys Ser Lys Gly Ser Glu Glu Phe Gln Arg Val Arg Gly Val Ala
                  5   10   15
Glu Arg Asp Gln Cys Leu Phe Leu Leu Leu Cys Tyr Gln Ile Tyr Thr
              20   25   30
Val Arg His Leu Tyr Ile Leu Tyr Arg Thr Leu Gly Ser Arg Lys Ser
          35   40   45
His Met Asn Leu Pro Leu Ser Ser Gly Ser Gln Leu Trp Leu Ala Pro
      50   55   60

<210> 565
<211> 57
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (1)...(57)
<223> Xaa = Any amino acid

<400> 565
Leu Tyr Tyr Cys Ser Tyr Leu Cys His Phe Arg Thr Ala Leu Ile Leu
                  5   10   15
Ala Val Cys Cys Gly Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln
              20   25   30
Asn Ile Asp Val Ser Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu
          35   40   45
Tyr Ala Val Ser Ser Xaa His Asn Val
      50   55

<210> 566
<211> 55
<212> PRT
<213> Homo sapiens

<400> 566
Ile Leu Leu Glu Phe Phe Arg Asn Gln Arg Gly Ser Leu Asn Pro Arg
                  5   10   15
Lys Thr Val Pro Phe Ile Lys Ser Glu Gly Gly Glu Lys Lys Gly His
              20   25   30
Cys Asn His Ser Val Val Ser Ile Asp Ser Ala Ala Ala Leu Leu Pro
          35   40   45
Leu Lys Leu Val Leu Leu Pro
      50   55

<210> 567
<211> 51
<212> PRT
<213> Homo sapiens

<400> 567
Tyr Ser Asp Phe Asp Val Phe Cys Ser His Thr Tyr Gly Tyr Met Leu
                  5   10   15
Ser His Cys Ser Gln Ser Ser Ser Pro Leu Leu Trp Pro Leu Gly Ile
              20   25   30
Leu Thr Leu Ser Thr His Lys Met Ser Lys Leu Thr Leu Pro Pro Ile

201

```
            35                  40                      45
Phe Arg Thr
        50


<210> 568
<211> 75
<212> PRT
<213> Homo sapiens

<400> 568
Lys Val Gly Glu Tyr Ile Leu Gln Ser Leu Leu Arg Ile Arg Lys Ile
                  5                   10                    15
Tyr Val Ala Phe Asn Ser Val Pro Ser Thr Cys Leu Leu Ala Ser Leu
              20                  25                  30
Thr Glu Thr Pro Val Thr Thr Ile Leu Thr Ile Ile Ile Asn Leu Thr
          35                  40                  45
Cys Phe Gln His Ala Glu Ser Ser Tyr Leu Phe Tyr Pro Leu Ala Asp
      50                  55                  60
Phe Leu Leu Gln His Ile Ser Leu Gly Lys Leu
  65                  70                  75


<210> 569
<211> 4809
<212> DNA
<213> Homo sapiens

<400> 569
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ggacagatgt ccgataatcc tttttacatt ttggcatcct tgggtagctc gtcttgtagg  180
aatggacttg cttcaaagtg gaggcaggca gatccttcag acgggtatat ggagccctgt  240
tttcagttgc ttttctaatt ctctcttatc gtttacctca aaatcttcct gaggtctcgc  300
ttccttttaa aatccttgtc tactttgcag catcactctg acactcccat tgattcctca  360
gcacctactg actacacggt taggagtgca agggtagaat tcatgtttta ttcatctttg  420
ggtctgtagc acccagcaaa gtgctcagta aatgcgcagt aattgatttg acctctgaac  480
aaatacacac tgtactaaga atctacacac cgaaagacaa aaacaagaca aatttgagtg  540
ctacaggtgt cacgcttggc atcacacatg tgcctgtgta ttcctctagg tggttaccag  600
gagctctgcc actgcatgtc cactagtgac gggttcgctc caccacccca gctgggtagc  660
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atgattggct gcacacttcc agactgatga atgatgaatg tgatggacta ttgtatggag  960
cacatcttca gcaagagggg gaaatactca tcatttatc tattacatgt tgttctggtt  1020
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ataagcttgc caataaagag tcctctgtgg tatggaactg gcttatttca tacacaatct  1140
gcaaacaatg agggcactat tggaaacata ctgtgctgca cagagcattt acaccgctta  1200
tctttaatct tccccagcaa tccttgcttt gtgcgcattt atgatccttg ctctcagaag  1260
tccacatact tttccccaac cgtaacaaat tatttaactc atctaatgta tgtatgtccg  1320
cgcagtctga aaacagtaat tgtccttggg aagaagtgag tttaagagag ctctagggca  1380
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gcttattctt gtgcttcatt cctggtaagc tcaatttctt taccttagga taactttgct  1500
ggaaaagggc tcagattcag ccgaccattg tggcctctgt ggctgtcaca gcttgtccct  1560
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gccagaacaa ctaggccttt tactccacca tcccctttgtt ttcttttgtt tcgttggtaa  1680
aaatcaatcc ttctaccatc catgcatagc aatttctaaa aactgaattt caagagcagt  1740
atctgaagaa acaaacatga tttggtcctt ttagtaaaca gaataaattt taataaatca  1800
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aaattagcac tgggcttata ttgagtcaca gatctgggcc ctgccacaga gagcttcctc 2160
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attttttatt attgaaatta acacattgcc tacttttaa aaattggaaa aagaaaaaaa 4800
aaaaaaaaa                                                         4809
```

203

```
aaaattgaat attgagatac cattctttag tgttaccttt tttacccaca tgtgtttctg 60
aaaatattgg aattttattc atcttaaaaa ttggacccgg ccttatttac catctttaat 120
ccattttagt actatgggtg agtacatgga attgaagtct ggcttaaatc ttcagaaagt 180
tatatatcta ttttatttta ttttttgag acagagtctc gctgtgtcac ccaggctgga 240
gtgcggtgcc acaatcttgg ctcactgcaa cctctgagtc ccaggttcaa gcgatactca 300
tgcctcggcc tcctgagtag ctgggactac aggcgtgcac caccacatct ggctaatctt 360
tttttgtatt tttagtagag acggggtttc actgtggtct ccatctcctg acctcgtgat 420
ccgcctgcct cccaaagtgc tgggattaca ggcatgagcc accgcacaca gctgggactg 480
ggtaatttat aaagaaaaga ggtttaatga ctcacagttc cgcatggctg gagaggcctc 540
aggaaactta caatcatggt ggaaggcgaa ggggaagcaa ggcacgtctt acatggtggc 600
aggagagaac gagtgagggg ggagactgcc acaaactttt ttttttttgag acaagagtct 660
ggccctgttg cccaggctgg agtgcagtgg catgatctca gctcactgca acctctgcct 720
cacaggttca agcaattctc atgcctcagc ctcccgcata gctgggacca caggtatgca 780
ccaccacacc tagctaattt ttgtagtttt agtagagatg gggtctcact atgttgctca 840
ggctggtcta aaactcctgg gctccagcaa tccgcctgcc ttggcctccc aaagtgctgg 900
ggttacaggc ataagccacc acatccagcc tgccacatac ttttaaacta t           951
```

```
<210> 571
<211> 819
<212> DNA
<213> Homo sapiens
```

```
<400> 571
cagcttaaaa atggtttctt gaaatcagtg attagcattc actcaccagt acccctacta 60
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ttattgcttt tgttgcaaat gccgtggctt catctgagga attctagaat tcagagggtg 180
tagccctcca ctctgctgtc ttgctatctg ctctcattgc atccgtttaa cctgcattct 240
gaaagatgtt tctcaggttt ttccttgacg attttcttct tttctgattc tgacaatgtt 300
ttaaatcatt gtactgtggt tatcatttct ctgcatttat tttacccatc ttcctttgta 360
acttgtccta ttgtctttta atttctgcct gttctttatg gctttcaact tcataaataa 420
catgttttct caaatctctt tgtgaattcc agagagggcc aggcacggtg gctcacatct 480
gtaatcccag cactttgggg aggctgagac gggtggatca cttgaggtca ggagtttgag 540
accagcctgg ccaacatggt gaaatcccgt ttcactaaaa atacaaaaat tacccaggca 600
tggtggcggg cgcctgtaat cccaggtact cgggaggctg agggaggaga atcgcttgaa 660
cctgggaggc tgagggagga gaatcgcttg aacccgggag gcagaggttg cagtgaaccg 720
agatcatgtt gctgcactcc agcctggtca acagagcaag actctgcctc aaaaacaaac 780
aaataaacaa acaaacaaac aaaacagaga gattttgct                         819
```

```
<210> 572
<211> 203
<212> DNA
<213> Homo sapiens
```

```
<400> 572
tatagaatac tcaagctatg catcaagctt ggtaccgagc tcggatccac tatttacggc 60
cgccagtgtg ctggaattcg cccttagctc ggatccacta gtccagtgtg gtggaattcc 120
attgtgttgg gcccaacaca atggagccac cacatccagc ctgccacata cttttaaact 180
atcaggtctc atgagaactc atg                                          203
```

```
<210> 573
<211> 132
<212> PRT
<213> Homo sapiens
```

```
<400> 573
Met Val Glu Gly Glu Gly Glu Ala Arg His Val Leu His Gly Gly Arg
                5                   10                  15
Arg Glu Arg Val Arg Gly Glu Thr Ala Thr Asn Phe Phe Phe Leu Arg
```

204

```
                    20                      25                      30
Gln Glu Ser Gly Pro Val Ala Gln Ala Gly Val Gln Trp His Asp Leu
        35                      40                      45
Ser Ser Leu Gln Pro Leu Pro His Arg Phe Lys Gln Phe Ser Cys Leu
    50                      55                      60
Ser Leu Pro His Ser Trp Asp His Arg Tyr Ala Pro Pro His Leu Ala
65                      70                      75                      80
Asn Phe Cys Ser Phe Ser Arg Asp Gly Val Ser Leu Cys Cys Ser Gly
                    85                      90                      95
Trp Ser Lys Thr Pro Gly Leu Gln Gln Ser Ala Cys Leu Gly Leu Pro
            100                     105                     110
Lys Cys Trp Gly Tyr Arg His Lys Pro Pro His Pro Ala Cys His Ile
            115                     120                     125
Leu Leu Asn Tyr
    130


<210> 574
<211> 62
<212> PRT
<213> Homo sapiens

<400> 574
Met Thr His Ser Ser Ala Trp Leu Glu Arg Pro Gln Glu Thr Tyr Asn
                5                       10                      15
His Gly Gly Arg Arg Arg Gly Ser Lys Ala Arg Leu Thr Trp Trp Gln
                20                      25                      30
Glu Arg Thr Ser Glu Gly Gly Asp Cys His Lys Leu Phe Phe Phe Glu
            35                      40                      45
Thr Arg Val Trp Pro Cys Cys Pro Gly Trp Ser Ala Val Ala
        50                      55                      60


<210> 575
<211> 76
<212> PRT
<213> Homo sapiens

<400> 575
Met Val Lys Ser Arg Phe Thr Lys Asn Thr Lys Ile Thr Gln Ala Trp
                5                       10                      15
Trp Arg Ala Pro Val Ile Pro Gly Thr Arg Glu Ala Glu Gly Gly Glu
                20                      25                      30
Ser Leu Glu Pro Gly Arg Leu Arg Glu Glu Asn Arg Leu Asn Pro Gly
            35                      40                      45
Gly Arg Gly Cys Ser Glu Pro Arg Ser Cys Cys Cys Thr Pro Ala Trp
        50                      55                      60
Ser Thr Glu Gln Asp Ser Ala Ser Lys Thr Asn Lys
65                      70                      75


<210> 576
<211> 68
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
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<222> (1)...(68)
<223> Xaa = Any Amino Acid

<400> 576
Met Leu Gly Lys Ser Arg Ala Val Cys Leu Pro Ser Thr Thr Val Thr
                5   10   15
Thr Val Cys Tyr Leu Ala Ser Ser Ser Ala Ser Arg Glu Thr Ala Thr
                20   25   30
Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa Ser Lys Cys His Ala Gln
            35   40   45
Leu Leu Phe Thr Phe Tyr Leu Asn His Phe Tyr Gln Ile Arg Leu Asn
        50   55   60
Pro Gly Tyr Ser
65

<210> 577
<211> 57
<212> PRT
<213> Homo sapiens

<400> 577
Met Tyr Leu Glu Asn Ser Phe Tyr Cys Gln Met Ile Leu Leu Lys Arg
                5   10   15
Cys Arg Leu Ser Lys Ile Ser Thr Gln Arg Val Val Pro Asp Gly Pro
                20   25   30
Pro Ala Pro Val Pro Gly Ser Phe Pro Met Phe Pro Arg Phe Gly Phe
            35   40   45
Arg Leu Ala Pro Pro Ala Asp Thr Pro
        50   55

<210> 578
<211> 51
<212> PRT
<213> Homo sapiens

<400> 578
Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu Leu Tyr Ile Arg His
                5   10   15
His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr Lys Lys Leu Asn Tyr
                20   25   30
Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His Ile Ala Lys Val Tyr
            35   40   45
Gln Pro His
        50

<210> 579
<211> 56
<212> PRT
<213> Homo sapiens

<400> 579
Met His Phe Thr Phe Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu
                5   10   15
Leu Tyr Ile Arg His His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr
                20   25   30
Lys Lys Leu Asn Tyr Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His
            35   40   45
Ile Ala Lys Val Tyr Gln Pro His

206

<210> 580
<211> 67
<212> PRT
<213> Homo sapiens

<400> 580
Met Glu Leu Arg Thr Lys Ala Leu Arg Thr Ala Gln Gln Leu Thr Ser
                  5   10   15
Cys Val Thr Ala Leu Lys Ala Ala Gly Pro Pro Leu Thr Phe Trp Lys
              20   25   30
Gly Lys Trp Val Gln Cys Cys Leu Pro Leu Trp Gly Leu Leu Gly Ser
          35   40   45
His Ala Phe Tyr Ile Tyr Ala Val Asp Ile Phe Met Phe Pro Gly Ser
      50   55   60
Phe Ile His
 65

<210> 581
<211> 77
<212> PRT
<213> Homo sapiens

<400> 581
Met Leu Glu Val Lys Phe Glu Val Ser Leu Arg Pro Thr Gly Asn Glu
                  5   10   15
Thr Ala Gly Gln Thr His Gly Thr Gln Asp Lys Gly Ser Lys Asp Ser
              20   25   30
Thr Ala Ala Asp Ile Leu Cys Asp Ser Leu Glu Ser Ser Arg Pro Ala
          35   40   45
Ala His Ile Leu Glu Gly Lys Met Gly Thr Met Leu Ser Ala Thr Leu
      50   55   60
Gly Pro Ser Trp Val Thr Cys Ile Leu His Leu Cys Ser
 65   70   75

<210> 582
<211> 51
<212> PRT
<213> Homo sapiens

<400> 582
Met Leu Phe Leu Gln Thr Ile Asp Thr Lys Cys Thr Gly Ile Glu Ile
                  5   10   15
Asn Arg Asn Trp Ser Lys Val Trp His Thr His Ser His Val Asp Val
              20   25   30
Lys Leu Cys Leu Glu Phe Leu Cys Gly Val Trp Phe Gly Leu Gly Phe
          35   40   45
Leu Gly Val
      50

<210> 583
<211> 60
<212> PRT
<213> Homo sapiens

<400> 583
Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg

207

```
                    5                      10                     15
Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
               20                      25                     30
Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
               35                      40                     45
Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
       50                      55                     60


<210> 584
<211> 76
<212> PRT
<213> Homo sapiens


<400> 584
Met Cys Leu Cys Ile Pro Leu Gly Gly Tyr Gln Glu Leu Cys His Cys
                    5                      10                     15
Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
               20                      25                     30
Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
               35                      40                     45
Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
       50                      55                     60
Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
 65                      70                     75


<210> 585
<211> 50
<212> PRT
<213> Homo sapiens


<400> 585
Met Val Tyr Arg Phe Gly Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu
                    5                      10                     15
Ala Ser Leu Gly Ser Ser Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp
               20                      25                     30
Arg Gln Ala Asp Pro Ser Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu
               35                      40                     45
Leu Phe
       50


<210> 586
<211> 60
<212> PRT
<213> Homo sapiens


<400> 586
Met Leu Val His Ile Tyr Ser Cys Cys Gly Met Val Tyr Arg Phe Gly
                    5                      10                     15
Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu Ala Ser Leu Gly Ser Ser
               20                      25                     30
Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp Arg Gln Ala Asp Pro Ser
               35                      40                     45
Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu Leu Phe
       50                      55                     60


<210> 587
<211> 1408
<212> DNA
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208

<210> Homo sapiens

<400> 587
ctggacactt tgcgagggct tttgctggct gctgctgctg cccgtcatgc tactcatcgt 60
agcccgcccg gtgaagctcg ctgctttccc tacctcctta agtgactgcc aaacgcccac 120
cggctggaat tgctctggtt atgatgacag agaaatgat ctcttcctct gtgacaccaa 180
cacctgtaaa tttgatgggg aatgtttaag aattggagac actgtgactt gcgtctgtca 240
gttcaagtgc aacaatgact atgtgcctgt gtgtggctcc aatggggaga gctaccagaa 300
tgagtgttac ctgcgacagg ctgcatgcaa acagcagagt gagatacttg tggtgtcaga 360
aggatcatgt gccacagatg caggatcagg atctggagat ggagtccatg aaggctctgg 420
agaaactagt caaaaggaga catccacctg tgatatttgc cagtttggtg cagaatgtga 480
cgaagatgcc gaggatgtct ggtgtgtgtg taatattgac tgttctcaaa ccaacttcaa 540
tcccctctgc gcttctgatg ggaaatctta tgataatgca tgccaaatca aagaagcatc 600
gtgtcagaaa caggagaaaa ttgaagtcat gtctttgggt cgatgtcaag ataacacaac 660
tacaactact aagtctgaag atgggcatta tgcaagaaca gattatgcag agaatgctaa 720
caaattagaa gaaagtgcca gagaacacca cataccttgt ccggaacatt acaatggctt 780
ctgcatgcat gggaagtgtg agcattctat caatatgcag gagccatctt gcaggtgtga 840
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cggtcctgta cgatttcagt atgtcttaat cgcagctgtg attggaacaa ttcagattgc 960
tgtcatctgt gtggtggtcc tctgcatcac aaggaaatgc cccagaagca acagaattca 1020
cagacagaag caaaatacag ggcactacag ttcagacaat acaacaagag cgtccacgag 1080
gttaatctaa agggagcatg tttcacagtg gctggactac cgagagcttg gactacacaa 1140
tacagtatta tagacaaaag aataagacaa gagatctaca catgttgcct tgcatttgtg 1200
gtaatctaca ccaatgaaaa catgtactac agctatattt gattatgtat ggatatattt 1260
gaaatagtat acattgtctt gatgttttt ctgtaatgta aataaactat ttatatcaca 1320
caatawagtt ttttctttcc catgtatttg ttatatataa taaatactca gtgatgagaa 1380
aaaaaaaaaa aaaaaaaaaa rwmgaccc   1408

<210> 588
<211> 81
<212> PRT
<213> Homo sapiens

<400> 588
Met Pro Gln Lys Gln Gln Asn Ser Gln Thr Glu Ala Lys Tyr Arg Ala
                  5   10   15
Leu Gln Phe Arg Gln Tyr Asn Lys Ser Val His Glu Val Asn Leu Lys
              20   25   30
Gly Ala Cys Phe Thr Val Ala Gly Leu Pro Arg Ala Trp Thr Thr Gln
          35   40   45
Tyr Ser Ile Ile Asp Lys Arg Ile Arg Gln Glu Ile Tyr Thr Cys Cys
      50   55   60
Leu Ala Phe Val Val Ile Tyr Thr Asn Glu Asn Met Tyr Tyr Ser Tyr
  65   70   75   80
Ile

<210> 589
<211> 157
<212> PRT
<213> Homo sapiens

<400> 589
Met Thr Met Cys Leu Cys Val Ala Pro Met Gly Arg Ala Thr Arg Met
                  5   10   15
Ser Val Thr Cys Asp Arg Leu His Ala Asn Ser Arg Val Arg Tyr Leu
              20   25   30
Trp Cys Gln Lys Asp His Val Pro Gln Met Gln Asp Gln Asp Leu Glu

209

```
            35                      40                      45
Met Glu Ser Met Lys Ala Leu Glu Lys Leu Val Lys Arg Arg His Pro
        50                      55                      60
Pro Val Ile Phe Ala Ser Leu Val Gln Asn Val Thr Lys Met Pro Arg
65                      70                      75                      80
Met Ser Gly Val Cys Val Ile Leu Thr Val Leu Lys Pro Thr Ser Ile
                85                      90                      95
Pro Ser Ala Leu Leu Met Gly Asn Leu Met Ile Met His Ala Lys Ser
                100                     105                     110
Lys Lys His Arg Val Arg Asn Arg Arg Lys Leu Lys Ser Cys Leu Trp
            115                     120                     125
Val Asp Val Lys Ile Thr Gln Leu Gln Leu Leu Ser Leu Lys Met Gly
        130                     135                     140
Ile Met Gln Glu Gln Ile Met Gln Arg Met Leu Thr Asn
145                     150                     155


<210> 590
<211> 347
<212> PRT
<213> Homo sapiens

<400> 590
Met Leu Leu Ile Val Ala Arg Pro Val Lys Leu Ala Ala Phe Pro Thr
                5             .         10                      15
Ser Leu Ser Asp Cys Gln Thr Pro Thr Gly Trp Asn Cys Ser Gly Tyr
                20                      25                      30
Asp Asp Arg Glu Asn Asp Leu Phe Leu Cys Asp Thr Asn Thr Cys Lys
            35                      40                      45
Phe Asp Gly Glu Cys Leu Arg Ile Gly Asp Thr Val Thr Cys Val Cys
        50                      55                      60
Gln Phe Lys Cys Asn Asn Asp Tyr Val Pro Val Cys Gly Ser Asn Gly
65                      70                      75                      80
Glu Ser Tyr Gln Asn Glu Cys Tyr Leu Arg Gln Ala Ala Cys Lys Gln
                85            \         90                      95
Gln Ser Glu Ile Leu Val Val Ser Glu Gly Ser Cys Ala Thr Asp Ala
                100                     105                     110
Gly Ser Gly Ser Gly Asp Gly Val His Glu Gly Ser Gly Glu Thr Ser
            115                     120                     125
Gln Lys Glu Thr Ser Thr Cys Asp Ile Cys Gln Phe Gly Ala Glu Cys
        130                     135                     140
Asp Glu Asp Ala Glu Asp Val Trp Cys Val Cys Asn Ile Asp Cys Ser
145                     150                     155                     160
Gln Thr Asn Phe Asn Pro Leu Cys Ala Ser Asp Gly Lys Ser Tyr Asp
                165                     170                     175
Asn Ala Cys Gln Ile Lys Glu Ala Ser Cys Gln Lys Gln Glu Lys Ile
                180                     185                     190
Glu Val Met Ser Leu Gly Arg Cys Gln Asp Asn Thr Thr Thr Thr Thr
            195                     200                     205
Lys Ser Glu Asp Gly His Tyr Ala Arg Thr Asp Tyr Ala Glu Asn Ala
        210                     215                     220
Asn Lys Leu Glu Glu Ser Ala Arg Glu His His Ile Pro Cys Pro Glu
225                     230                     235                     240
His Tyr Asn Gly Phe Cys Met His Gly Lys Cys Glu His Ser Ile Asn
                245                     250                     255
Met Gln Glu Pro Ser Cys Arg Cys Asp Ala Gly Tyr Thr Gly Gln His
                260                     265                     270
Cys Glu Lys Lys Asp Tyr Ser Val Leu Tyr Val Val Pro Gly Pro Val
```

210

```
            275                    280                    285
Arg Phe Gln Tyr Val Leu Ile Ala Ala Val Ile Gly Thr Ile Gln Ile
    290                    295                    300
Ala Val Ile Cys Val Val Val Leu Cys Ile Thr Arg Lys Cys Pro Arg
305                    310                    315                    320
Ser Asn Arg Ile His Arg Gln Lys Gln Asn Thr Gly His Tyr Ser Ser
            325                    330                    335
Asp Asn Thr Thr Arg Ala Ser Thr Arg Leu Ile
            340                    345
```

<210> 591
<211> 565
<212> DNA
<213> Homo sapien

```
<400> 591
actaaagcaa atgaacaagc tgacttgcta gtatcatctg cattcattga agcacaagaa     60
cttcatgcct tgactcatgt aaatgcaata ggattaaaaa ataaatttga tatcacatgg    120
aaacagacaa aaaatattgt acaacattgc acccagtgtc agattctaca cctggccact    180
caggaagcaa gagttaatcc cagaggtcta tgtcctaatg tgttatggca aatggatgtc    240
atgcacgtac cttcatttgg aaaaattgtca tttgtccatg tgacagttga tacttattca    300
catttcatat gggcaacctg ccagacagga gaaagtactt cccatgttaa aagacattta    360
ttatcttgtt ttcctgtcat gggagttcca gaaaaagtta aaacagacaa tgggccaggt    420
tactgtagta aagcatttca aaaattctta aatcagtgga aaattacaca tacaatagga    480
attctctata attcccaagg acaggccata attgaaggaa ctaatagaac actcaaagct    540
caattggtta acaaaaaaa aaaaa                                            565
```

<210> 592
<211> 188
<212> PRT
<213> Homo sapien

```
<400> 592
Thr Lys Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Ile
  1               5                  10                  15
Glu Ala Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu
              20                  25                  30
Lys Asn Lys Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln
          35                  40                  45
His Cys Thr Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Ala Arg
      50                  55                  60
Val Asn Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val
65                  70                  75                  80
Met His Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val
              85                  90                  95
Asp Thr Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser
          100                 105                 110
Thr Ser His Val Lys Arg His Leu Leu Ser Cys Phe Pro Val Met Gly
          115                 120                 125
Val Pro Glu Lys Val Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys
          130                 135                 140
Ala Phe Gln Lys Phe Leu Asn Gln Trp Lys Ile Thr His Thr Ile Gly
145                 150                 155                 160
Ile Leu Tyr Asn Ser Gln Gly Gln Ala Ile Ile Glu Gly Thr Asn Arg
              165                 170                 175
Thr Leu Lys Ala Gln Leu Val Lys Gln Lys Lys Lys
          180                 185
```

211

<210> 593
<211> 271
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(271)
<223> n = A,T,C or G

<400> 593
actttatgtt cnagtgcana aanccncctg gattgccacc ntactctcag ggctgtgant   60
tgtgcnccca nagcaacctg ggcacgcggg gacagggggg ccnacaattg agggagcggt   120
gtccctagct ggggtctata catgncnggg naagggcngc tgagtnccat nagcaaagga   180
nctagnatnt gcggggggtgc ggcctgggcc tacccctttna agcatccntn gatccactcc   240
angaanccng gggtagncag gtttnccaac a   271

<210> 594
<211> 376
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(376)
<223> n = A,T,C or G

<400> 594
cctttggggg nggggggaac ctttaccatt gtnccccttt atttcatttg gttngggttc   60
gcgccctcnn gggccaacaa agttatcgtn nttgaagaga anattttttt ggnttngncc   120
cgattaagcg ncaaatgtgt agcaaaangc cgtgccactt gtggcgtagc tncgtcgggt   180
cgattcgacg acaaggcgtn gcgcgntanc gttagtctcn aatngacccn gtggcatgag   240
cccacgangg nttcgtgtcg tcacatggnc tctagacata acgcncnccn ttttttncag   300
aggggggntgc cgcccttagg gaggnagggg tggggacact agccaancca nantctnacc   360
ccattgaaga aaaggn   376

<210> 595
<211> 242
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(242)
<223> n = A,T,C or G

<400> 595
agnctgctgn tcgtnccctn tatgtggctt catnntgagg acaanagtng cactgaggct   60
tgngnatgcc aggcaaggnc aagctggctc aaaaagcatc cacccacctc tgnaangggt   120
atgccangag cangtgcacc agtcccaact angagncccn ggcatgntac atcttcttcc   180
acccctnaaa ntttgngcta caangnccat ttttcttttt ctcttaaggg ncncntggct   240
tc   242

<210> 596
<211> 535
<212> DNA
<213> Homo sapien

212

<220>
<221> misc_feature
<222> (1)...(535)
<223> n = A,T,C or G

<400> 596
accagttgga tactgctaaa nagatattta tgcagcctca tatgttaagt cgtatatttt   60
gaaagctttt taaattttt cttttaagaag attttagatg cttatcactg agtaccagag   120
ggatgtaggc tgatgccctt atcaacaaag tcagggactg tggcacacaa ggattgacta   180
ctgcagacac ggccacaatg ctacctctag agggcctgaa tcccctgcc ctctctggtg   240
gggagaaggg ctggcagagc cattagcatg ggctccggcc aatcctggcc actttgacac   300
tcctggtgct gacccagggt cctggaggaa gggatgaggt gggcagtaga gatgctcagg   360
gcagtggccc ctttccatcc acactggaac tatttcagta ttttaccacc aattcagcca   420
ttcccttgtg cgctggctga acatcagccc tgctccaggt ctcagtttcc cctttgtaaa   480
gggaaagctc tggattcagg gagtgatgaa gaggtcatca tggtcttgag aattc   535

<210> 597
<211> 257
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(257)
<223> n = A,T,C or G

<400> 597
tttcnatacc caaaantacc ccatattang accanacatt tgtctnggaa aaattaccat   60
tntntaacnt ttgggccacc tgagannaaa tgggtgtaat ncatgataag atggancagn   120
attnctctta agatnngatn agaccccgtt tttcacggaa catatccaag nacccaatag   180
gnaacaagcc acgggnggag tcacaaacat atattcttta ctctcataat ccgtnncaca   240
naactnttgn acttgac   257

<210> 598
<211> 222
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(222)
<223> n = A,T,C or G

<400> 598
nntggntacc gtcnaaactt nncttggtac ccgagctcgg atccactagt ccagtgtggt   60
ggaattccat tgtgttgggc tataagctgt aatagtggag ncgtgctngg ttcattgcan   120
nagnccctcc gcanncacnc ttgnnacaac ctgtgagnag gcnataaatt attcacataa   180
tcatcactgc atgaanctga ctcaaacgca tccacntaca cc   222

<210> 599
<211> 238
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(238)

213

```
<223> n = A,T,C or G

<400> 599
gcatgacatc ancgatgtnt ttggnnacct ganattngct aaaactngng natgccgggn        60
atgnaggttt ggtantgatc tatgcactca catctcatgg ggacgtttca tgtggagtgn       120
tcgacaangt tgctgnancn gagaagtgat gatctcagtt gaaagggtca tgtgaataca       180
cnttacactt gaaaaagaag cacattggga atatcacgaa acgnccacca acatcctg         238

<210> 600
<211> 232
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(232)
<223> n = A,T,C or G

<400> 600
cgaactattt agactaccta ggaaaattat tttagtatca gaagaatatc aggggtgtag        60
tactcatcag agctaaatga gagcgcttta aaaatgttag tttgtcttcc gccatttcta       120
cagaaagctg caatttcagg ttttcaacct aataggtgat atttaanaaa aaaaaaaagc       180
aatcgcaaat agccccactg cttttacaaa tcattttttc cccaacacaa tg              232

<210> 601
<211> 547
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(547)
<223> n = A,T,C or G

<400> 601
cattgtgttg gggaaaaaat gatttgtata agcagtgggg ctatttgcga ttgctttttt        60
tttttcttaa atatcaccta ttaggttgaa aacctgaaat tgcagctttc tgtagaaatg       120
gcggaagaca aactaacatt tttaaagcgc tctcatttag ctctgatgag tactacaccc       180
ctnatattct tctgatacta aaataatttt cctagtgtag tctaaacttt tttaaaaaga       240
catgtaatcc gcggagttag taactcaaaa cgagtgcatc tnggaagtat cgcagccgtt       300
nctggatnaa attcccagct tgctngcttg ctnagccggg gggcggtnaa aaaaacatct       360
gcagcccngg ggnaaaaacc ttcgcattgt tcttacgtgt ttacgttatt ttatttccct       420
nnagcaaggc ngggganttgg ggactcgaaa tggtacagtt gggctgggga tcgcccttgt       480
tacataaaag ncgtccagaa gagggacggt tacaggcngg ganctccaaa ggtcagtccc       540
tgccatt                                                                 547

<210> 602
<211> 826
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(826)
<223> n = A,T,C or G

<400> 602
cgggggggnnt tacgtctctc tggacgcttt tattgtacca gggcgatccc agcccaactg        60
```

214

```
taccattcga gtccctactc ctgccttgct ctagggaaat aaaataacgt aaacacgtaa    120
gaacaatgcg aaagcgtttt cttccctagg ctgcagattg tcttcttcac cgcccctgct    180
tagctagcta gctagctggg aatttaatcc agaaacggct tgcgatacct cctagatgca    240
ctcgttttga gttacaaact ccgcggatta catgtctttt taaaaaagtt tagactacac    300
tagggaaaat tattttagta tcagaagaat atcagggggt gtagtactca tcagagctna    360
atgagagcgc tttaaaaatg ttagtttgtc ttccgccatt tctacagaaa gctgcaattt    420
caggttttca ncctaatagg tgatatntaa gaaaaaaaaa acaatcgcan atagcccact    480
gcttttacaa atcatttttc tcttctaggt atagcctgtc aggtggccta atgtattttt    540
gacatctcta ggaatttttaa tagaccagaa atgggtgcca gagatatgcc tgcactaatc    600
ttaagtgggg atttatgtat ttctcaanca agtgattaaa gcaaaactag gcacgaatga    660
aatcaagatc tttaggccag aaatcatgaa nanttttana attattttan gaatctgtgg    720
cttctcttct taaaatngaa aaaaaaattg tttaaaccca naaggtctga atacccaagc    780
nccctgaacn anagaacaan gccggagcac ccctcccaa atcccc              826
```

<210> 603
<211> 817
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(817)
<223> n = A,T,C or G

<400> 603
```
nnangacttt tgtggtntta tacaattntt ttttctattt ctatgaagag aaagccacag    60
agtcctaaaa taattctaaa actcatcatg actttcttgc ctaaaagatc ttgatttcaa    120
tcgtgcctag ttttgcttta atcacttgct tgagaaatac ataaatcccc acttaagatt    180
agtgcaggca tatctctggc acccatttct ggttctatta aaattcctag agatgtcaaa    240
aattacatta ggccacctga caggctatac .ctagaagaga aaaaatgatt tgtaaaagca    300-
gtggggctat ttgcgattgc tttttttttt tcttaaatat cacctattag gttgaaaacc    360
tgaaattgca gctttctgta gaaatggcgg aagacaaact aacattttta aagcgctctc    420
atttagctct gatgagtact acacccctga tattcttctg atactaaaat aattttccta    480
gtgtagtcta aactttttta aaaagacatg taatccgcgg agtttgtaac tcaaaacgag    540
tgcatctagg aggtatcgca agccgtttct ggattaaatt cccagctagc ttgcttgctt    600
agcaggggcg ggnaaanaag acatctgcag cctaggaag aaaacctttc gcattgttct    660
tacgtgttta cgttatttta tttcctanaa caaggcngaa ttgggactcg aatggttcag    720
ttggggtggg ggatcccctg gtncataaaa ngtcanaaag anggtacagg cggaacncca    780
agggtcgtcc tgcatttana ctcggaattt tggtgcc                      817
```

<210> 604
<211> 694
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(694)
<223> n = A,T,C or G

<400> 604
```
cttttcaaat catttttnct cttctaggta tanccctgtca ggtggcctaa tgtaattttt    60
gacatctcta ngaatttttaa tagaaccaga aatgggtgcc agagatatgc ctgcactaat    120
cttaagtggg gatttatgta tttctcaagc aagtgattaa agcaaaacta ggcacgattg    180
aaatcaagat cttttaggca anaaagtcat gatgagtttt agaattattt taggactctg    240
tggctttctc ttcatagaaa tagaaaaaaa aattgtataa aaccacaaaa ggtcctgaat    300
agccaaagca acactganca aaaagaacan agcagggaag caacacacta ccngaattca    360
aattatacta ccagggtgta gtaaccaaaa cagcattcta ttggcataaa atagacacca    420
```

215

```
agaccaatgg ancagaataa agaaccccac aaataaatcc atatatntac cgccanctga    480
ttatcaataa cnaacaccaa gaacatatnt taagggacnt nctattcaat aantagtgct    540
ggnaaaaact gggaaatcca tatgcagaaa naatgaaact agacccctat ccctcaccat    600
acgcaaannt caacttcgga atgggattac aaaacttaag acattccaac ccaagaaact    660
atnaaancta ctattaagaa aacagatcnc nccc                               694
```

```
<210> 605
<211> 678
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(678)
<223> n = A,T,C or G

<400> 605
taaaaatcta gactacacta ggaaattatt ttantatcag aagaatatca ggggtgtagt     60
actcatcana gctaaatgag agcgctttaa aaatgttagt ttgtcttccg ccatttctac    120
agaaagctgc aatttcaggt tttcaaccta ataggtgata tttaagaaaa aaaaaaagca    180
atcgcaaata gccccactgc ttttacaaat cattttttct cttctaggta tagcctgtca    240
ggtggcctaa tgtaattttt gacatctcta ggaattttaa tagaaccaga aatgggtgcc    300
agagatatgc ctgcactaat cttaagtggg gatttatgta tttctcaagc aagtgattaa    360
agcaaaacta ggcacgattg aaatcaanat cttttaggca agaaagtcat gatgagtttt    420
anaattattt taggactctg tggctttctc ttcatagaaa tagaaaaaaa aaattgtata    480
aaaaccacaa aaggtcctga atagcccaaa gcaacactga acaaaangaa caaagcagga    540
agcaacacac taccggaatt caattatact accaaggtgt antaaccaaa acagcattct    600
attgggcata aaatagacca aagaccagtg ggaaacagaa taagaancc caaaataaat    660
cctatattta cngcccnc                                                 678
```

```
<210> 606
<211> 263
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(263)
<223> n = A,T,C or G

<400> 606
gtggggtcng cancagccaa ctcagcttcc tttcgggctt tgttagcaga cggatcatcc     60
tctagtccac tgtgntcaaa ttccattgtg tggggccnc tcgcctcggc canagatctg    120
agtgancana cntgtcccca ctgaggtgcc ccacagcngn ttgtnttcag cangggctna    180
caactcgacc ggcagcgnan ggctggcaga antgngcgcc tnnctcattc ctacgcngtn    240
ngccgcagga aggangacag gcc                                           263
```

```
<210> 607
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 607
ccatgtgggt cccggttgtc tt                                             22
```

<210> 608
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 608
gatagggtg ctcaggggtt gg   22

<210> 609
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 609
gctggacagg gggcaaaagc tggggcagtg aaccatgtgc   40

<210> 610
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 610
ccttgtccag atagcccagt agctgac   27

<210> 611
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 611
gatagagaaa accgtccagg ccagtattgt gggaggctgg gagtgc   46

<210> 612
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 612
gcacatggtt cactgcccca gcttttgccc cctgtccagc   40

<210> 613
<211> 38
<212> DNA

217

```
<213> Artificial Sequence

<220>
<223> Primer

<400> 613
gccgctcgag ttagaattcg gggttggcca cgatggtg                        38

<210> 614
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 614
cggcgggcat atgcatcacc atcaccatca catcataaac ggcgaggact gca       53

<210> 615
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 615
gcactcccag cctcccacaa tactggcctg gacggttttc tctatc               46

<210> 616
<211> 1350
<212> DNA
<213> Homo sapien

<400> 616
atgcatcacc atcaccatca catcataaac ggcgaggact gcagcccgca ctcgcagccc      60
tggcaggcgg cactggtcat ggaaaacgaa ttgttctgct cggcgtcct ggtgcatccg       120
cagtgggtgc tgtcagccgc acactgtttc cagaactcct acaccatcgg gctgggcctg      180
cacagtcttg aggccgacca agagccaggg agccagatgg tggaggccag cctctccgta      240
cggcacccag agtacaacag acccttgctc gctaacgacc tcatgctcat caagttggac      300
gaatccgtgt ccgagtctga caccatccgg agcatcagca ttgcttcgca gtgccctacc      360
gcggggaact cttgcctcgt ttctggctgg ggtctgctgg cgaacggcag aatgcctacc      420
gtgctgcagt gcgtgaacgt gtcggtggtg tctgaggagg tctgcagtaa gctctatgac      480
ccgctgtacc accccagcat gttctgcgcc ggcggagggc aagaccagaa ggactcctgc      540
aacggtgact ctggggggcc cctgatctgc aacgggtact tgcagggcct tgtgtctttc      600
ggaaaagccc cgtgtggcca agttggcgtg ccaggtgtct acaccaacct ctgcaaattc      660
actgagtgga tagagaaaac cgtccaggcc agtattgtgg gaggctggga gtgcgagaag      720
cattcccaac cctggcaggt gcttgtggcc tctcgtggca gggcagtctg cggcggtgtt      780
ctggtgcacc cccagtgggt cctcacagct gcccactgca tcaggaacaa aagcgtgatc      840
ttgctgggtc ggcacagcct gtttcatcct gaagacacag gccaggtatt tcaggtcagc      900
cacagcttcc cacacccgct ctacgatatg agcctcctga gaatcgatt cctcaggcca       960
ggtgatgact ccagccacga cctcatgctg ctccgcctgt cagagcctgc cgagctcacg      1020
gatgctgtga aggtcatgga cctgcccacc caggagccag cactggggac cacctgctac      1080
gcctcaggct ggggcagcat tgaaccagag gagttcttga cccccaaaga acttcagtgt      1140
gtggacctcc atgttatttc caatgacgtg tgtgcgcaag ttcaccctca gaaggtgacc      1200
aagttcatgc tgtgtgctgg acgctggaca gggggcaaaa gctggggcag tgaaccatgt      1260
gccctgcccg aaaggccttc cctgtacacc aaggtggtgc attaccggaa gtggatcaag      1320
```

218

gacaccatcg tggccaaccc cgaattctaa   1350

<210> 617
<211> 449
<212> PRT
<213> Homo sapien

<400> 617

```
Met His His His His His Ile Ile Asn Gly Glu Asp Cys Ser Pro
1               5                   10                  15
His Ser Gln Pro Trp Gln Ala Ala Leu Val Met Glu Asn Glu Leu Phe
            20                  25                  30
Cys Ser Gly Val Leu Val His Pro Gln Trp Val Leu Ser Ala Ala His
            35                  40                  45
Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu Gly Leu His Ser Leu Glu
    50                  55                  60
Ala Asp Gln Glu Pro Gly Ser Gln Met Val Glu Ala Ser Leu Ser Val
65                  70                  75                  80
Arg His Pro Glu Tyr Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu
            85                  90                  95
Ile Lys Leu Asp Glu Ser Val Ser Glu Ser Asp Thr Ile Arg Ser Ile
            100                 105                 110
Ser Ile Ala Ser Gln Cys Pro Thr Ala Gly Asn Ser Cys Leu Val Ser
            115                 120                 125
Gly Trp Gly Leu Leu Ala Asn Gly Arg Met Pro Thr Val Leu Gln Cys
            130                 135                 140
Val Asn Val Ser Val Val Ser Glu Glu Val Cys Ser Lys Leu Tyr Asp
145                 150                 155                 160
Pro Leu Tyr His Pro Ser Met Phe Cys Ala Gly Gly Gly Gln Asp Gln
            165                 170                 175
Lys Asp Ser Cys Asn Gly Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly
            180                 185                 190
Tyr Leu Gln Gly Leu Val Ser Phe Gly Lys Ala Pro Cys Gly Gln Val
            195                 200                 205
Gly Val Pro Gly Val Tyr Thr Asn Leu Cys Lys Phe Thr Glu Trp Ile
            210                 215                 220
Glu Lys Thr Val Gln Ala Ser Ile Val Gly Gly Trp Glu Cys Glu Lys
225                 230                 235                 240
His Ser Gln Pro Trp Gln Val Leu Val Ala Ser Arg Gly Arg Ala Val
            245                 250                 255
Cys Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala His
            260                 265                 270
Cys Ile Arg Asn Lys Ser Val Ile Leu Leu Gly Arg His Ser Leu Phe
            275                 280                 285
His Pro Glu Asp Thr Gly Gln Val Phe Gln Val Ser His Ser Phe Pro
            290                 295                 300
His Pro Leu Tyr Asp Met Ser Leu Leu Lys Asn Arg Phe Leu Arg Pro
305                 310                 315                 320
Gly Asp Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu Pro
            325                 330                 335
Ala Glu Leu Thr Asp Ala Val Lys Val Met Asp Leu Pro Thr Gln Glu
            340                 345                 350
Pro Ala Leu Gly Thr Thr Cys Tyr Ala Ser Gly Trp Gly Ser Ile Glu
            355                 360                 365
Pro Glu Glu Phe Leu Thr Pro Lys Lys Leu Gln Cys Val Asp Leu His
            370                 375                 380
Val Ile Ser Asn Asp Val Cys Ala Gln Val His Pro Gln Lys Val Thr
385                 390                 395                 400
```

219

```
Lys Phe Met Leu Cys Ala Gly Arg Trp Thr Gly Gly Lys Ser Trp Gly
            405                 410                 415
Ser Glu Pro Cys Ala Leu Pro Glu Arg Pro Ser Leu Tyr Thr Lys Val
            420                 425                 430
Val His Tyr Arg Lys Trp Ile Lys Asp Thr Ile Val Ala Asn Pro Glu
        435                 440                 445
Phe
```

```
<210> 618
<211> 385
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(385)
<223> n = A,T,C or G

<400> 618
ctgtgctgag aaccaaaagc tatgancact gcttttccaa atgtccataa naccaacatt      60
tttatcacta ccaccatcac ctgggagctc nttagaaagc tagtctcccg ggcaccaccc     120
tggcctactg aacctaatgt gcatttaaca agattnacgt ngaaatctgc aaagcacagg     180
ggcngataac agtaccacct gntctggttc ctanccccan gacccttaca gtctaactgg     240
gacacaaggg cttnaaatca aattgcctat cattaagata tacaanganc ntgagaaact     300
gctncactta tntattaagg ngctctaaga cttagaaacn aaangcantg ctgagangat     360
tcaaatatga ngggggncac tttnc                                           385
```

```
<210> 619
<211> 869
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(869)
<223> n = A,T,C or G

<400> 619
gatatcccgg gaattcgcgg ccgcgtcgac ctctacttgt ttagacataa atgcagtcta      60
gcattaaaga tcctttaaaa aaatgttttc ccaatggtta aaagacaagc tcaaataaat     120
gaactctcat acatatgcca aaattgatga gtagataaat atttcagtag gtagttacta     180
gctttctgtg tatgagtaaa catatgggag aaatttaaaa cactaaagta gactcaatga     240
aagcatagta tcctatgtat tcgtttttca gaaatgtcta atgaggaag gaaacaatga      300
atgaatgccc ttattcctct tagagtgctg ggacatggtt ttgcctgaaa acttcatgtg     360
aatttatat tttgctacac attacaccca tcttagactt atacgtataa gacataaggc      420
atatcttatg tcttacatgt ataataatct aagcagaaca aaaataacg aaatattttc      480
ttccccaaat tttgagaca gatggatttt ccggaaagat gtgtttagct tttaatcctg      540
tggttttgtg taccacctgg cacactagag tgttgctcta attcagtgag ttgtaactct     600
gggtgaacag tggaaatact agggtacatt ttaaaatgc taatgctcgg gcctcgctga      660
agaccaaatt aattggaatc tctgnggng gnattgatct ttttataatc tttctanang     720
attctaatgg gcttccaggg atgaaaaccn ctgntggagc tnggaacctt cctttagttt     780
ggagaaaccc cgatgagggt ntnttaggcn ccgcctnttt ttggcctggg cttcccccct     840
tatnntnttt tggaanggnc cnaattttt                                       869
```

```
<210> 620
<211> 339
<212> DNA
```

220

<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(339)
<223> n = A,T,C or G

<400> 620
gngcgggcct cnccgtgctt gctctcgctg ccgacgctct ttttccacca gctgtaggan   60
aagcccgaag accactggtc ccccgggtag cccaagtacc actggtcctc ctggctcctg   120
acgctncggg tcttcctcgt ggcgtagact gccagcttcg gagacccctc agcccctccc   180
cgcttttctc caccccagga ggccatcagt agcgagctac tgcctcggcc acaacctccc   240
agcangatag cccgcggttt ccaatctgcg aaaggaggac cgccnagccc gaaatgccna   300
gcccagcnat cactgccacg ccgagccnag cgctcgtgc   339

<210> 621
<211> 267
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(267)
<223> n = A,T,C or G

<400> 621
ggggngcatg gtcccnggta gccaagtaca tggtcctcct ggctcctgac gctacgggtc   60
ttcctcgtgg cgtagactgc cagcttcgga gacccctcag cccctccccg cttttctcca   120
ccccaggagg ccatcagtag cgagctactg cctcggccac aacctcccag caggatngcc   180
cgcggtttcc aatctgcgaa aggaggaccg.ccnagccaga aatgccnagc cnagcgatca   240-
ctgccacgcc nagccnagcg ctcgtgc   267

<210> 622
<211> 847
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(847)
<223> n = A,T,C or G

<400> 622
cttangntgt cgactgacgt catgcatgan ttaaagcaga ggtttggtga aatttatgaa   60
aaatacaaaa ttccggcttg tcctgaggaa gagccactac ttgataactc tacaagagga   120
acagatgtga aggatattcc ctttaatttg acaaataaca tacctggttg tgaggaagaa   180
gatgcatctg aaatatctgt ctcagtggta ttcgagacat ttcctgaaca aaaagaaccc   240
agtctcaaaa atatcatcca tccatactat catccgtact ctgggtccca ggaacatgtt   300
tgccagtcat cttctaagct tcatttacat gaaaataaat tagactgcga caatgataac   360
aaactaggca ttggacatat ttttagtaca gataacaact ttcataatga tgcaagcact   420
aagaaagcaa ggaacccaga agtggttacg gttgaaatga agaagaccaa agagtttgat   480
ttgcaaatga caaaaaatat gaaccaaaat agtgacagtg gcagtacaaa taactataaa   540
agcctgaaac ctaaaattaga aaatctgagt tctttaccac cagattctga cagaacatca   600
ggaagtatat ctacatgaag aattacagca agacatgcca aaagtttaag aatgangtca   660
acacattaga aanaagantt ctgggctttg aagaaagaaa atgttccact tcataaagaa   720
ggttgaaaga agaatgggag agcccngaan tttttgcccn gaaattttcg ggaaccctac   780
tggatgggtc nactggttgg ccatgaatga ataatggact aatcnnccaa ttcctnggga   840
agggaat   847

221

```
<210> 623
<211> 681
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(681)
<223> n = A,T,C or G

<400> 623
aaaactgtac tcgcgcgctg catgtcgaca ctagtggatc caaagaatcg gcacgagcga        60
aaangctcan gcagcccggc tggccgccgc cgctcctccc cccaggaaag ccaangtgga       120
ngctgatgtg gctgcangag ctcgtttcac agcccctcan gtgganctgg ttgggccgcg       180
gctgccangg gcggaagtgg gtgtccccan gtctcagccc caaggctgcc cctcacaaag       240
cactggtggt ttgcctccac tgccaccttg ggctccgaac ccgctcccct gctgtggang       300
cccaccgtgg gaatccaggt ccccaggtgg actgcctgcc ttgccctcac tgcccactct       360
gcccacactt ccctgcctag anaccgggaa ggggctgtgt cggtantggt gcccacctgg       420
atgtggcagc accgactgtg ggggtggacc tggccttgcc gggtgcaaaa gtgggggccc       480
ngggaaaagc acctgaagtg gccctgaaaa atccccccctt aattttnccc caatttgggg      540
ctcnaacaaa aggaaattgc tgaagccaan ggtaccaagg tcacccctaa ggccagggtg       600
aaaaggtccc aaaattccaa tncccaccnt ttgggcttnc ctcttggaac cccggccccc       660
tctcntgaan ttttaaaaaa n                                                 681

<210> 624
<211> 661
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(661)
<223> n = A,T,C or G

<400> 624
attggtctta ctgtaccacc gggtggaaat cgatggccgc ggcgtctaaa tatccgattt        60
tttttttttt tcctcttctg actgtccatg gacaaatgaa actaacttaa tctaactaaa       120
aaacacaact atattttgaa gattttctat ctgcactcaa ggacactttc cacncggttg       180
ttgttacctt ttggtcttgt ctctgaacat gaaattnatc tcaagggatt ngatttctgg       240
acctcctatt cctgctatgg gtttgatatt tcttgggctc cagggccact gttgcattgg       300
gntgacagnt acctcctagc ccatancctc ctatcttggg aaacaaacct aacaactacg       360
tgtaccttcc atagatctct gattgagtct cagtatncgc ttgctcatgg gcgattcact       420
tgaatccgtn attggtgcca acaatcctga ctcatgggnn aatggatcct atcacgttcc       480
cctgattngc aacccctgta tacatanatc taatcgcata gaatctagcn tnggntatgc       540
gcggctacgc tatcagggnt tgntaactat ngcatggcta cgaancctga tcatgatcna       600
gggtcatgga ctcttatcag gggggttggg ccgngcttct ttttcnnacc ttggtaaaac       660
c                                                                      661

<210> 625
<211> 181
<212> DNA
<213> Homo sapien

<400> 625
gcaacaatca gatcatgtta aagtaaatct ccattgccct ggatcacttc aggatttaat        60
tgtccaagga gagcagggtt ctcctgtgaa aaaaaggtgg ggaaatgttt gagagtaaaa       120
aatacaaaat tcaaccggtc gaaaatacac cactccattc agtgctctac ccccataagc       180
```

```
c                                                                            181
```

```
<210> 626
<211> 181
<212> DNA
<213> Homo sapien

<400> 626
gcaacaatca gatcatgtta aagtaaatct ccattgccct ggatcacttc aggatttaat     60
tgtccaagga gagcagggtt ctcctgtgaa aaaaaggtgg ggaaatgttt gagagtaaaa    120
aatacaaaat tcaaccggtc gaaaatacac cactccattc agtgctctac ccccataagc    180
c                                                                            181
```

```
<210> 627
<211> 813
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(813)
<223> n = A,T,C or G

<400> 627
accaagctgg agctcgcgcg cctgcaggtc gacactagtg gatccaaagt gaacgtgaag     60
gtgagcagag gagaacttgc gatggcaaag ttaaaaacaa gaggagatga tggtcttggt    120
gtggcacagg atgttaaaaa aattctcctg tccttaagga gttactgcta tttgagtaat    180
gtgccacttc cctacatagc cttctatgca gaaatgctat atttccactt cacaacccag    240
aacgtgcatt ttattttaca tttagaggag gaacaaacaa ccagaaggca aaaactggtg    300
cattattttt tgcaattctc ttggaaagag ttcgttttta acttctgctc agacagcaca    360
caactactgg gaatatattt taatttcaaa tctgatgtgt gacatctggt aactcattta    420
ttgctaatga agttttcaca ggaagcagca gtcaccagta gctcatctta tttttcagtt    480
ggcaaagtgt tgtttacctt ttattggcct gcatcggtgt ctcttatcac aggatattta    540
attagaaaac gcaagtagcc taacatagaa nagaaatgga gtggtagata atagtagata    600
gaatggctaa atatttttat tacagtgatg taatatcact gnaatttatg gttaaaaatt    660
atgtaatact caaaaggaat tctcagactg gcgaaacagc tggncaacag ctntcacagg    720
gctttnanct cctnttgagc tttccccctg ntggacttta gtcttccttt tacncccgna    780
gttnccattn nttaccaatt gtnccgggaa ana                                         813
```

```
<210> 628
<211> 646
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(646)
<223> n = A,T,C or G

<400> 628
tttgggnggn ggtgtctcnt ttgggtggac tttttgggtc gtagggcccc aaggccgtta     60
atcccgtaat aacggaagac gaagaagagt cagaagagtg cttctataag gatcgggacg    120
agactacctt agaggaataa aggaaaaaag cagaggagga agagtggtag aaggagtcag    180
aagaaaccca cacgtcgttc tgaacctgga gccttatcaa aaaggtctag ataaacgata    240
gcgatctcga tatcgagctc aagaggtagg tttagagact tctcgtcctc gagagcgaaa    300
tggaagatct cgacgacgat aagaagttaa agtgtagagg gtgcttgagg agcgcgtgga    360
aggattctgc ggagggaccc atcgacgtag agacttgaag gcctactaag gtccacaaga    420
agcccggctc tttctccgaa tggtcggagc gtacagtatg cgacgtcgat cggcagacaa    480
```

223

```
gctggcggta gactcgaagt gttcgggcga atcgacttat aatagtcgcg cgctagtaac      540
gtaggaacac gaagagtagt cgaaagaaaa cgtttagtga gggaaaagat tagggaaaaa      600
ggagaggctt aataactaag acacttggag cctaggccaa cgcgaa                     646
```

<210> 629
<211> 617
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(617)
<223> n = A,T,C or G

<400> 629
```
gcccccnccc ccctcctngg gcttatnggg acagacccac gtagtactct aaatcttctc      60
ctacgccgga caacggaccc tataccaatt cgaatcttgg acactccgac cgccggattc     120
tcttcccctt tcggcttccc ctttctgtcg gtacccctcc ctagtcgtct cctacacctt     180
cgtaccgtcg atatatagtc gccgcggact agcctattta ggtgtcctag actcgttatt     240
gatccactca ttagtctagt actatgcgtc acgtatctta gttgcctaag agggagatta     300
aatcctccac aagttccgac gaattcctgg actctcgtac tagcaaactt tcttatgagg     360
cttccttgta tatcttctgg atgtttctcg tgtcccggtc ctccgctact actagagctc     420
cttgccctat ctctagaagt agaggactct cgggttcgtt ctccaaatct agcgctagag     480
ctatcgctac ccgctcgatt cccccagcgg aatcttgaaa cctgaggtag tacacaaacc     540
ctccncatct tccctcggtt gctccttctt ctcatccccc cttcccgcct tctcgggaan     600
gaatctactt tancttc                                                    617
```

<210> 630
<211> 644
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(644)
<223> n = A,T,C or G

<400> 630
```
cnntcggcnt gggtttntt ctgagnnncc ccccccccc ccccccaaa cttacacca        60
ccaaacactt tccgcccccct acctaggaga cattagaagg gtttaggctt cggcgtatag     120
taaagtcctc tacctcggaa gtagagaatt cggtatttaa attcagggtt agaggctcgc     180
tcgttagatt tatagtttag gtttagaatc ggaaaccttc gatcttcctt agaagggtaa     240
taagtgaggc cctaaatccg tctaaccaag gcgttaaggt ccgtacctaa acctagtctt     300
atcttctatc aggcgcacca atataggtag gttctacttt cgtataggcc ttaaggaata     360
gttcggtagt tatcgaaggc actcctctct aggctaggct tttctcagtc ttagtactcc     420
gggaccgtcg tcgcanaaat atcgatggac ggtaggtatc tccgcgttac gcgtcgggct     480
agggatatag agcgaattat cggcgagagg cggtcgctan gaatcggtat caatatgntg     540
ttctttaccc tacggatatc ggcagaaaac ataaaacctt ctnaccangg ataagggatt     600
atcggacccc taaaataaca gtaacattta gantactagt accc                      644
```

<210> 631
<211> 526
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(526)

224

<223> n = A,T,C or G

<400> 631

```
ccntcggctt gggtttttttt ctgagccccc cccccccccc cccccccccc ccccccggc     60
cccatagccc caccggnccc acccaaattt taacaaaata aatntaccta tcgntcacct    120
atcccncgta tcgngtaggt cggtaccggt accggngatc ncnacgattn ttcgggtcgt    180
cncccttaan acggncccgt agccnccgga anaaatacta cgagngactc taatntagca    240
anacccgccg tcnattanta gcatccttag tcttccaatg ncgnggattn ngaatccttn    300
naagttatcg ggtagaacgg gtcccggtcc cccgccctct ttncaattaa cgccgggtac    360
aaantcggtt tctaaattcc ncacgaattt ngncggcaac attcncgggn ccttattanc    420
cntttccaac cccgatacnc nagctcgatc gggctttanc gaatccgggg tcnccccga     480
ngantccggg tcctttgagt ngctctagga cggttacgac ggagga               526
```

<210> 632
<211> 647
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(647)
<223> n = A,T,C or G

<400> 632

```
tttgggnggc gggngctcat ttgggtggac tttttgggtc gtaggaacct ggtatgaggg     60
gtgttttgag tttcttcttc gtcgtctctg ggaggttcgg tttcgattga gattcgggtt    120
cgtctttatc ttacgaggca ccctgatatt gttgcgcttt ggtttggttg tggagagttt    180
tgtcctactc tagcgggtca tgcggatgat atgtagcctg cgtggcctga tagtgatgtt    240
gtgagcttga gaggggagtt gtgggtgttg cgggcggagt aggaggggtt ggagcaccgg    300
gattgggaga tatagaatca taagtgttag gtataggtcg attgagcgag ttcgtggaat    360
tcgtgtggtc atcataatta gagtgaggat gggctctata tttcttagag gacgcacggt    420
cgtgattcgg ggtttgatgg gtgttcttct tgtgggcacg attagcttgt tcatgatggt    480
aaggaccata ctgtttcgaa tgaggattcg tgtcttcgga ttgttgtgga tattgtggnc    540
tanactattt agtgtaagcc ggaggtggtt tgccgtggtg gagtatccga nnttcattcg    600
ganggtatgc gtgcggagcg gtccttgtag acattccgga aaaatgg               647
```

<210> 633
<211> 630
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(630)
<223> n = A,T,C or G

<400> 633

```
tccttcggct tgggtttttt tctgaccccc cccccccccc ccccctcgga aggcctctag     60
gctcccaccc gtctctctaa tcctcaggaa ccgatccacc caaccaactt actaatgtcc    120
tacagtaaac acccgagaat ataaacccac acctaggcct ccaatcctac cagggaagca    180
agaagccgta gtctagcgta ttacgaaccc gagatagaga cggagatact tagtttttatt    240
ctctcggaat aggaaagacg actggggagg gaatataggc tagcgcgggg ataggggcta    300
tggcggatat ggggggcgggt cgctctctta ttcttctata ccacgtcaat aggaatgtag    360
atataccta g atgttccgt agaaagagac gttagaggtc tccgaagcta taaaggagag    420
gcgcgaagaa acttcgtact ctagctttat ataggtagtc gctctagtcc cataagcgac    480
gagagatcta ctagatttcg gtatcgccgt cgtatgtatt cgaaatagtc ttcttcccct    540
tttcgatctc ctctctatac tacatggnga ttatagtcnt aagatagtca ggatattagg    600
atattagtta tatgacgttc gacgggacgg                              630
```

225

```
<210> 634
<211> 647
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(647)
<223> n = A,T,C or G

<400> 634
ccntcggctt gggttttttt ctgacccccc cccccccccc cctccactaa gancttaacc      60
caaccctata gtttactcgt ataggggaat cgaggagaaa taggaacgaa gagcgggtga     120
taaagagaaa gtactttcct ttatatgtta agagcttagc gtaatgactt tcgttatatg     180
gctagttgat tttatccggc gttatagggc ttagttctgg ttatctcggg tctaattccc     240
ttagtatgct cgggagttta acgaggtcac gggatagcgc gtaccctttc taaggttctt     300
ggaaagctat tcgttatttta tcgcgattct cgaggtcgaa aggatcaagg atcttccctt     360
ttactaccct agtcgggtta gcggtcggtc aaaactagtg tagtaccttt acctcctcga     420
aagttatagt cgaaacaacg tattagtcga aattatagcg gatagatcga gacggttctt     480
tctcgggttc tcagccggta atccctctat ttgggggtct tctccctctt cccctttgtc     540
ttccgcctta gcttccaagg ttcctcggaa gcgaggggtt ctacttaagt cgntagcgtt     600
ccttataaac cncctacagg cagaccccct tgtaaacggc tcggggt                   647

<210> 635
<211> 645
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(645)
<223> n = A,T,C or G

<400> 635
ccttcggctt gggttttttt ctgagccccc cccccccccc cccgaaactc gccttaccct      60
agatacccaa agaatagttc cactcaactt cgtctaagta aaactctaga acttccaaac     120
ataaaagact tcgcgcggtt agctacacag cctacgggaa tctcacgaat cccgattcaa     180
gtcccactct cgaccacacc ccggtatcgt cgttttccca taccaatgtc gaaaaataaa     240
ataaaatcca gtcaagcccc acggtaagcg ggggtagggc taggcgaaga ggcaggaacc     300
gttcgaggcc gggggctttc aaaatacaaa acaactactt aaagtttacc ccttctaaag     360
tcgggggcaa cggttaaagc acgcctctaa agtactactc gtttcgagaa ggggtagtca     420
tctcccgcat agagactctc gcgtatatca actcgcatcg cttctagcat tccgacggtc     480
gcccgcggct acatatcttg cggattagct ccgagggact atagggttaa ttagtctagt     540
aaattctctt agaggatagt cggggtcgta gttaggcagt acgaggggac atggnctgcg     600
tcgtgctcta ccttgacagc atactcttat aaacatcttt ttcct                    645

<210> 636
<211> 643
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(643)
<223> n = A,T,C or G

<400> 636
```

226

```
ccttcggctt   gggtttttttt   ctgacccccc   cccccccccc   cctagcggaa   aacaatcccc     60
accgagattt   tattaatcgt   aaaactcgcc   ttcggtacca   agtcttcctc   cttcccgtaa    120
cctggctccc   tcctagnggc   tttacgaacg   tccctcctct   tcttacggct   cggaagtggt    180
tacggttaaa   tccggaggng   gggctaacga   atccaaggct   aactcctctt   anagtttgtt    240
gtccncncgt   ttagtaagga   tccgtggagg   gcgagtattt   gnccccggc   ctttattnta    300
tagttcccta   gtacgataaa   gntaccggct   atcctattac   agcggataaa   agttatttan    360
agggccgacg   tcnccgctag   acaggctaca   gctagnggag   gtaccgcctc   cgactantcc    420
gttgnttccg   acaaggnagt   ttcggttaac   tccacaaact   cctccgccga   ctctanggta    480
gggacggcag   ttcccncgtt   tagtgtgcgt   tatagagaag   ggcatttgag   ttggacgtta    540
cnttttaaca   taggttattc   cgtttaggtt   cttgcgggcc   cgtgggggta   gtncnccggc    600
gcgttnntat   cggcgatttt   ccgcagtttc   cgtttccggn   tnt                         643
```

<210> 637
<211> 631
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(631)
<223> n = A,T,C or G

<400> 637
```
gggttntctc   atttgggtgg   acttttttggg   tcgtaggaac   cggtatgnag   gagtaggagt     60
cgctgggaag   actagaagtt   agctacggac   gattagtgtg   attccactct   taataacgag    120
taatcgttta   cgtcgggttg   gtgtttcggg   gttttggaga   gtaagcgtag   ttgtggagtt    180
tcgcatatag   gtccccttac   ttcggcgatc   tcgtcttctg   tcggttaggt   tattattgtt    240
catccttcgc   attagtagta   gggttggtcg   gataaatcga   tagctattct   ttagaattcg    300
tagtcggaga   attcgtgtac   gaagtccttt   aagttcttta   agttcgcgag   taagacgtgt    360
acggttattt   tgtcgtcgac   gtaggtgtcg   tttacgggag   tttcgtttta   ggggtttacg    420-
tagaacgtta   ttaagcacgg   taatacgata   gaggattacg   cgacgtattc   gtcttagaac    480
gtcgattttt   cgaaggcgca   tttgttatcg   aaggggagtc   cttggagaat   cgagatattc    540
caagaatatt   acggagatta   cagatcggaa   ggctcccgag   atcggacgta   ttaccggtct    600
cgcccgaaac   gagtaggtat   cntccggata   a                                       631
```

<210> 638
<211> 606
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(606)
<223> n = A,T,C or G

<400> 638
```
cccccccccc   ctcaaccatc   nattccccac   ctcaacgcga   attacggttt   cgaaagtcga     60
caataagtcc   ggtcgagtag   agggaatcag   gggctggtan   aaaggaccac   gggcggaaaa    120
taccggtctc   cttccgggga   gcgacgtcgg   ggaaagggaa   gagagcggtc   tagttcgtag    180
gcaaacaggt   cagaaaagtt   aaggttaaag   gtcggagggg   agaggatagc   tagtacgctt    240
agttcggggc   tcgggcgcag   ggccactttc   ctctttcgcg   ttcctttact   ctgcttacga    300
gttcaggctc   cggagttccg   cgccggaggt   cgtcgcgacg   ctaggaatgg   ggactcgctc    360
agtccccggt   tatccttcgg   gattctatgt   tttcgccgat   agacggagac   cgggtagtag    420
ggttccgtcg   taccgccact   cgtcgccttg   atccggcccg   ctccgcttaa   gggcgatgaa    480
agattaggta   ttagggctct   acgggacgag   gcatagggcg   ggagaagggg   ggaggggtcg    540
ggggtcgaag   ggantaagaa   atcgcantcg   cgcggggtcg   gtagganccg   aaattttct    600
cnncgt                                                                        606
```

227

```
<210> 639
<211> 592
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(592)
<223> n = A,T,C or G

<400> 639
tccntcggct tgggttttttt tctgagcccc ccccccccccc cccccgggaa cgagaaaaca      60
atcccaccct accgcgggga gtgggttgna cgcttagttc tagaatcctc ggaatcgtcc     120
tccggcgttg gtagttccgg cgattccgag tatgccgaag tgtatcgctc cgtctagagg     180
ttggtatctg tttatcgcga tgacgctatt gactcggatg ctttcgaagt aggggggatag    240
gcgcatagat acgcctccgc ggtgtcctct gaagtggccg catccgtgga cgcagcgtag     300
acagctctgg tggacgataa cggcttctcg tactcctact ccggctatta tgttagagag     360
gacttgtttc tgaacggata taccattagc gaaggggtac cctccgctaa cgcaggcgtt     420
tctaacagtt cttccgggcg ctccgaattt agattgacgc ctccgcagca ttgtgggatc     480
ctcttccgtt agccctcttt ataggatttc tcctccgccc cgaaagangg ctggtcgtcc     540
ccggcangta tgtctagctc gaacgctttg ttactccttt gttttcgaaa na            592

<210> 640
<211> 637
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(637)
<223> n = A,T,C or G

<400> 640
ctttgtggcg gtggntgtct catttgggtg gactttttgg gtcgtaggct tatccggggtn     60
gggctcccga agtagcttag gatcgccggc tagttccggt cccgcccgtc gaaagcgcgg     120
ttcggcgggc ggccccgcgt tcgttcgcgg gctttaccct catagagtgc caggtctcgg     180
ttcttacggg ttcgtcggcg atagatttta cggcgagagg tcggtatctt cgccgcttta     240
cgttcggtcg gcatctacgc ctagttcaca ggtagtttat gcgccggagc gcgtgacgga     300
gaggttatac gggacgcgga agaaccgcct ccaaatgact agtacaggct cgttcgggcg     360
tagatctcct cgctcggtcg gcggttctta cttctagggc cgctctacgg tttaaggcgg     420
tcgttagatc ttagaaacta tactcaagtt tcagtcggaa gaaaggaagt agagagaagg     480
gtaaacgatt acctccggtt ctagcccttt ttactcgcat aacgggagaa cggggtccgg     540
ctctcagata cgcctcgcga gacgtcgcga ttcaacttta acctccgcta gggcatccgt     600
atacggttaa cgcggtaaaa gcgacctcgg aaacctc                             637

<210> 641
<211> 649
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(649)
<223> n = A,T,C or G

<400> 641
ctntgtggcg gtggttgtct cagtttgggt ggattttttgg gtcgtaggna acctggtatg     60
aggtctagtt tcttcaacga ttcttggttc agttacgcga ccctatcctt atcttacaat    120
```

228

```
gtcttctaca tcaggttcat caattaatat atcaattaca cattaacgac ggtgtgacgc      180
aatatgagaa agtatacatt aaggttatta tatattattc gcttaaaaag gttcctgaca      240
tgggacaact tcacccacca ttctagaagc cccccctcct gtaggacccc ctcgagttcc      300
ccattatctt agttcagttt tcattttta accaggaggg tatcggtttt taataggtac      360
tattttgtca aacttttcag aagctttatc ttcaaatata cttgcaccat ctgtactagg      420
agcactaact attcgagtct attacagctc aacagaaaat aattgaaatt aaacaaccta      480
agtatcgtcc accataaccc catcgggctc tcaccccatt tcttcataag ttctagagca      540
tcctgagctc tttcctatta cccttgatgg tactcatggt ctaatacccc ccgcagttat      600
aggtccttat ggatcctatg ctaccaccgg tctaatccct tctatcacn                 649
```

<210> 642
<211> 645
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(645)
<223> n = A,T,C or G

<400> 642
```
tccttcggct tgggtttttt ttcgtcgcgg gttactatta tcgattgtta cttgtaaagg       60
cgatactccc accgctcacg atattagacc tgctcctcta gaagcgaacg gcgataggtc      120
tactcggccg gcgaagacgg cgaacgggta ggaggagcca tatgcaaccc taacggagat      180
tataagtact gggaaaaata ctagtattaa ggtagcgggt taagataggt ggagagacac      240
tattcacgag cataagcact tagaaggtct tctcgaggag aggtaggcta cggactacgt      300
tccttcttcc tctagcctcg agagggagta tagatgattc gcaaagaga atccctccta      360
tacgctggca taactagacg acgcgtcgtc gggaaatctc gccaacccta ttgcgacctc      420
caaaaggaag attgtcgttt catagaacgc taatactccg ggtcttcccg aatcatagcc      480
gcatatcggt aagaagacgg taaaatcgcg cgattctaac aagattctgt agacttaagg      540
ctaagcacta gaagcgatct cgattccgga tcttaagatc atactaatag ttcggtcaca      600
ccagacgacg attagccact agaagcccta ctccgtngaa accgg                     645
```

<210> 643
<211> 586
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(586)
<223> n = A,T,C or G

<400> 643
```
ctttgtggcg gcggtgtctc atttgggtgg attttttgggt cgtaggaacc tggtatgcag       60
ggtccgcccg gaattaaaag cgggatcccc aaaacgnngn ttcgcaagaa gagaagaatc      120
atagcgatag anctttcata gtacaaaggt aactaagagg aaaataatgc agattcagaa      180
ctagttgcca aattagaact cgattaggcc aaggatccga gcctggcgct atcacttcgg      240
gacttaagct acggtagagc agtcggtcct gaagcatagc tcccgtagga cgtaggaaac      300
tagtccggca cggaggacat actctcgagt ctcggaacgt ctatttagaa tataaacgca      360
ttaacctcag aaggcgccga cgcggttact ctctaggaa ctatttcatt ccttccggag      420
ctccctatt tttccaacac atataccggc aaaggaaat cttntgtcct cggtctaaag      480
agagggaaaa aaaacgatat ctaggttcgg gtttatccat ttaaaaanat ngacgcgact      540
actccctttc aaagggagtt tcccctagg nagagttcaa cngaag                     586
```

<210> 644
<211> 646
<212> DNA

229

```
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(646)
<223> n = A,T,C or G

<400> 644
ctttgtggcg gtggttgtct catttgggtg gcatttttgg gtcgtaggaa cctggtatng      60
agggctattt gacttgtttc tcaaatccca tggtatggtg ggtggcgtgc ggggtggcgg     120
tcggttcggc gggggtgggg gtcgtcctcc aaaggagttg ctagagggct tttagtggtt     180
ttagggcggg aaggggttag agcggagaga cgtcgtcgtg gaagcttctg gcggagcgcg     240
agaaggtagt tagcgccggt tcggaagatt ctcagaattc gagaagaggt agtggggcgc     300
ggagagagag tttctaagtc taaacgtaga ggtcgtccta gtcgggccgg gagtagcttt     360
taagctagag gtcgaggtcc tcgtttaggc tccgggctct tcgggcagta tcctctttct     420
cgaggaacgg agcgaccgac gtcgtagccg gacccgtcta tccgtacgtt tagagatacg     480
ctcacctcca cgggcgtata tgcccgtata cgtataaacg cgtaatatac tcgcgcgtaa     540
aacacgtata cactatatac acgcatcgta cggaccgtat agcgttatac gcgcgcgtat     600
attaatttac acttatatac gcgttaacac gatatatcac acnccg                    646

<210> 645
<211> 654
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(654)
<223> n = A,T,C or G

<400> 645
nccntcggct tgggtttttt tctgaccccc cccccccccc ccccggtcg acaacgtgcc      60
caccgttgcc atcccagcat agctggttcg ttctgtttta ttcttagtag tttagttcgc     120
ctatagtccc tcgtctatcg tctatcattt aaggaggcgg ggctcgctct ttagggcggg     180
tatcttaggt attcttctgg tttcggctgc cgtctcggag tctggtcctt ttgctttcct     240
ttcttggtcg aacttcgtgt ttgatcgcgt tgtttctttg gggtcgtcat acctaaggcc     300
cacttcgcca acaaacaagt ttgtgtagtc gtttctatta gggttcgctg gccggcgctc     360
ttactggttg gcgatttta acgcgtttgg ttttaatttg cttcctcccc tagggctcgc     420
tcggtcttct ctctgttcgc tgctctcgtc cggcctttgg tgcggggata gctccggcta     480
ttancgtgcc gtgtccgtgt ggnttttgtc caatgtgaag gcctaggggt gcgggcttct     540
ttggccatgg nttcccctct tgtgancctt aggggtaacg antcgtaatt naaggtcggg     600
ggttggnata cgttntangg gangcctgng tccgntattc cttgttttgg cctn           654

<210> 646
<211> 645
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(645)
<223> n = A,T,C or G

<400> 646
tccttcggct tgggtttttt tctgagcccc cccccccccc ccccacgcc aagtacacag       60
acccaccaaa aacaacgtca acacaacttc gggtatacgg accttaagag agaccccgta     120
gtagaccCta ccacagccat ccaatagtca aacaacaagg gcgcacccaa tccatccata     180
gagctatcaa acaacggagg ggaaaggaaa gagcagggtc aacttagcag agatcgaagt     240
```

230

```
cggcactaat tccttcaag tactcgctcg gcttgtagtt cggggtaaag tccgctctca      300
aagggccaac gaggttttaa agcgaccccc gtatcgagtc ttcttcgtat tcattaaggc     360
gttaaaggta cgagacctag aagagagtag aattagccca ccaaatcgcc taaaccggca     420
aaaacgacca aaagtcaaag acccttacaa atatcacctt aaaacgccaa ccccaaaaac     480
gcgatcagta acgcacgtac ctttcccacg cttttctttc tttcactctc caaaacaaac     540
ccgaatattt agcgcaaaaa atatccgagg gagaattaga agctattacc cgaaaaaaaa     600
ncgganangg antaaatngt ggggaatana cgtttggttt ttctg                     645
```

```
<210> 647
<211> 753
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(753)
<223> n = A,T,C or G
```

```
<400> 647
accttacctg gtaccgggcc cccctcgag  tttttttttt tccaaataca actcagattg       60
tatacgaaaa gctgataata cattgacttt tgctgtttaa atcccttgag cctttgataa      120
tgattttttt tgtgttaaca attgtagtat ataaaatcgg attcaccatc cttctgatgc      180
catattgatt agtttgattt tatggtgatg ggatcattgt gtgttaactg tattaagaag      240
aaatggattt gattgacttt gcatccattt ttatctgtgt tactttcatg ttttatttaa      300
aagcatttct ggaccagaat aagttaagtg gtataatttg cttttacac gttatataa       360
ttgaagttag caatgtggca aaatctctaa tggaaataaa atgcttcaga atgatgacat      420
aaatctgagc tatttcttgc ctggagaaca agtgttattc ataataattt aatagcttct      480
gaggtgtttt gttcatgtga tgaaggctta tccaccttgt atcaattcat gggctctgct      540
ttgtttaatg tagtcaggtt gttaatacna gacttaagag tcatcctact gtgataagtg      600
gtgagtgaag attacatgtc ttangaaaat tatactggga atatctctga cattaatggg      660
tttaaatgtt ttaaggctag gggatgatgc aatgganaan atncttccaa angtttctgg      720
ttgtttatat ttgnggaagn catnaagana ccg                                  753
```

```
<210> 648
<211> 383
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(383)
<223> n = A,T,C or G
```

```
<400> 648
gatatcccgg ggaaatgcgg aggcctttng gcttacgtgt ttaccgcgta gggcaaagcc       60
ttgncaaatt cccggccagc ggagcggcga gggtggggac tcacgggaag ttaaacagcc      120
tcgtcggcgt cctcgaggct ccaaaaccag gctctaggcg gggacgactg cagccgttat      180
ggaggccacc gcggctacgg ccgcggctga ggcctcccca ggtggagcgg tggcctggag      240
gggaatcttg atcctgggcc agccacctgt caagaggagg cggagcgtca tgcctctgga      300
agactggatg aatattctcc aggagcctga cgaaggcgaa gaagtctttg cagaggaaat      360
tgaatgctgt ctgatgctac aat                                             383
```

```
<210> 649
<211> 349
<212> DNA
<213> Homo sapien
```

```
<220>
```

231

```
<221> misc_feature
<222> (1)...(349)
<223> n = A,T,C or G

<400> 649
cgattgtnta cnagtcttag agtaagctta agntcgntac cgagctcgga tccactagtc      60
cagtgtggtg ggaattccat tgtgttgggt cactagtaaa tggatttagc tagacanagg     120
anatttaccc tattccattt agcacagtga gganaggcta nacagctagg atgcaataaa     180
aaaaatttta atgagaaatg tgtgtggtag attaattcta ttaatctcaa gttatagatt     240
aaaaaattta agtaccncat aaatgccatt tgcctttgct aangntacat ttttatgaan     300
aangaccntg catacnnaat ganatactgg actttnggna cttgangga               349

<210> 650
<211> 306
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(306)
<223> n = A,T,C or G

<400> 650
cattgtgttg ggagcatcct tccatcagct cccatgagaa attctctgtt gggtttaagc      60
aatccccaaa tatatcatat tgacatgaat atatcatctc ctcaatgtcc agcattagca     120
gacaagatga gtgctgaaga tgatataact cctacctctt atgtaggcta gaggtaaagt     180
ctggctctgc tgactgtggg gacataccga aaaggaatgt gggttaatat cagangacct     240
ccctgcagat ccganantca gggnctggac tttctgggan aggaagcnna aagttatntc     300
tgaacc                                                           306

<210> 651
<211> 769
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(769)
<223> n = A,T,C or G

<400> 651
cattgtgttg ggcagggtca tttctaaggc atgggctgga agcttttatt taaaacttta      60
catgtcttag aagcactctg gttgttgcta ggcagacaat tttacatctc ttgctatacc     120
agttgcatga agttcatcat gcatattggc tgtggaaaac cttaacagca tcatgtcata     180
aggtttcagt aaggtttaaa tgaaatcatg tattaagcac ttagtatagt gcaccttaaa     240
tgttagcttc aaaacaatga caacctaact aatgttgaaa gaagcttgtg tttgtaaatt     300
atgtcttatt gaaagatgtc atcaaatcct gttatttcta atcccttaaa gtctctcaat     360
gtatttcttt ttgccatatc caatgacagg accttagttt aagccagtgg ttctctcaac     420
ttctaatcca gagatacctg ggtgtcccca agacctttc agagcatcct tgatgtcaaa      480
accattttca taataatatt aaaatattat ttgctcattg tactcttatt ctctcccaaa     540
tattcagcga gttttccaga agctatataa catgtggtaa catcttatca ctctgacgat     600
taatagaata tgngnttttg gattcttgng tttaaaattt tctcactttg gggttctaat     660
atggnnacga ttaatagata tggnctccat gaccagangg ctttaaagca ntcaataatt     720
tttaagagac taagnactat cctttaaaga tngngaactc catcttaat                769

<210> 652
<211> 267
<212> DNA
```

232

```
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(267)
<223> n = A,T,C or G

<400> 652
nnangcccctt taaccattgn ggcctccacg cnntggcggc cgctctacaa ctagnggatc        60
cgcnactcta gnanaangat tggctcttnt gggntgggcc ggncgggctg gggcgttaag       120
cggggctggg cgcgcgccgn ggttgnacna ggcgccgccg cccncacacn cccggagcac       180
cctcnttgcn gccntncccc gctcacccg cgcgcgccgn tccgcttttt ccncacccan        240
agcnctnttt atctntgtct cctccgg                                           267


<210> 653
<211> 501
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(501)
<223> n = A,T,C or G

<400> 653
cccnttnacc cattgctgga ctccaccgcg gtggcggccg ctctanaact agtgggatcc        60
ttncnatgag atgngcgang gaggacnnat ttgctatnct ggatgggggct gantcntnta      120
gctnctctag cancagatgg gttatcgagg aagatgactc caangggcta nantcctatg       180
cncatcctaa aanncanctg ctgtnttcag agtacgcgac acatcatcnc tnatgcattg       240
ntgancaaga cgggcangtg cttatcctca gcgangatgc ccttaaccan gagctcgaat       300
ggacntatca ccntanaggt acanntnccg caccacacac cngcttgcnn cctgacgctg       360
gactggatcn cttaggccac caatnccccg tttnccacat ncctgggacn ctananatac       420
tcganggggg gcccggtanc caattcgccc taatactgag ccttgntacg nacgctnact       480
nggngtccta ttanaacgtt g                                                 501


<210> 654
<211> 710
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(710)
<223> n = A,T,C or G

<400> 654
gcgnctttan cncatgctgg gctccacgcg gtggcggccg ctctacacta gtggatccca        60
acactgagtc caccacagna aaactcanca ccaggcagac cccacaactg cagaatccag       120
gctgcaattc acagactaat cntctagacc cacctcagta ccagatggta ccacacagct       180
caaggnttta ggtttgcgtg gtanactcaa tctctatctt tcaccactgc cagcctgact       240
tcagagatcc tgngctctgg acagtcctca gtggcaggca actctcagga gcctcaggnt       300
tttggcacat cccagnacca gccagctgcc acaggccctg accttntanc aacactgccc       360
atgtattcca gacttctanc ataccacagt gccatgctga ttgcatctat agangctcag       420
gtgcncctca aanctgtgcc tgctgcagna ngccccacgt ctctggcatg ccccaatgcc       480
atgngtggna acanttgact tctgggcatg ntggaattcc ctaccactga ncctgaccat       540
aggngggganc ccattttttt cgaggggggg gcccggcccc caattccncc ntatagngag       600
ncgtanttac gcgcnnctta ctnggccngt ngtttaacaa cgtcnntgan ctggggaaaa       660
cccctggnng cnacccaaat taaacngcnt tgcannacat cccccctttcg                  710
```

233

```
<210> 655
<211> 202
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(202)
<223> n = A,T,C or G

<400> 655
cccctttncc ctttcanccc ccccgttttg gcngccgccn acacctactn catccaccca        60
cantcgacca cccgagcttt tttccgatcc cancatcnat gcngattttn tctntgcntg       120
ctgngcctgc acctttgnta ggtcaagcct ggcccatctt cgacaacttc ctcatcacca       180
acgatgaggc atactctgac ga                                               202


<210> 656
<211> 308
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(308)
<223> n = A,T,C or G

<400> 656
gctgntgaaa gaccacaccg aaaaactctn ctttccgact tccacatgat gatcngcatg        60
tggtggtgag agacttatca tgacgacatc gcttccacc atcgcanccn ctgcccaagc        120
ccattcatgg aggcctgggn anttctgtga ntgacntnga cnctanacnc tnccactgtn       180
tgctatccag acttgnttng aatatnttat tggcnaaana canttncgga atgctgtgnt       240
tgnncattga angatctgat cactatgaga gggtgaggac nncctgctng ctggcantnt       300
ntaacccn                                                              308


<210> 657
<211> 696
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(696)
<223> n = A,T,C or G

<400> 657
accntttcca caatnctgnn ctccccgcgg tggcggccgc gtcgaccagc aacctcagct        60
gtgggtcttg ttacagtaat gagttactgt aaggaaagtg tgacatttcg agcaatttga       120
tttgtttaaa aactagagca gtttcagggt tttccttgta aatctgtctt atgtgtcttc       180
aatgttcttt cttgaggagt agagaaagga attgttagga atgatgcata aaccatggct       240
tattttatct cgctgccacc cataatcaga gcagattctt gggactatga ccctcatgga       300
gacatgacaa ttgtgtgtgt ggtgggtggg agaaaagagc tgggaatttt tagggtctag       360
agggtccaat caggactatt ttatggagct ctgctcacca actttaagtg agcaccaggg       420
gtgngaaagc gaatcttggg ntcaaaanaa caatggnaag gggtaagttg gtatnctgaa       480
ctggccactt cggactctta tttaactggg tattctcant taaggaggcn ngggtggtct       540
tggcttgtna aggaaagcct gtgcaatgga atgactttaa aaccccccat taaaaaaaaa       600
angntataaa tcttgggtct taanaangaa gcctgggttc tnttanccca ttttnccccc       660
gggaaggnaa atnttcttag gnaanggaag ggaagg                               696
```

234

```
<210> 658
<211> 698
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(698)
<223> n = A,T,C or G

<400> 658
ctggactccc cgcggtggcg gccgctctag aactagtgga tccgtgttgg ctcaattctc      60
aaggctgttg ctgtgcggcc tgttccccac acgtgctgct cagctcaggc aagcaccgag     120
cttgtgttgt ttcatgctca gcgtggaggc ccctcctcca ggtcgctgct ctgtggggtt     180
cccatacact caggctccta ggaggagtcc atttagaaag ccagggtttt tctcagagtc     240
ttagttcctt gtgctgtcat ccatttcaca cgacttgggc cctgctcggg gcaacacagc     300
aagagaaaag acagggaaaa taagagaggg accttgcaca cacacgctct ggaccacaga     360
gccctgtgcc cagctcctct gtcaatacag gtggaatctc gtgcaggatc gcaggggtct     420
gtgatgccac caaagagcag gccgggacag ggttaggaga gaaaggagag ggaagtgggg     480
gtttctccta cgcactctta tttgcagagg gaaaggcggg tttgtattgg ggttgtcggt     540
ctttgcaccc acngcacagt tgtgagacac ccccatcctn agatcaaagc cccacataca     600
gcttggggaa aaacaaaacn aaacaaaaca aaaacagtaa acctccatgc canttgttgg     660
gnaagttttn aatttncttc cccnacccan cttgcttc                            698

<210> 659
<211> 750
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(750)
<223> n = A,T,C or G

<400> 659
ncaanctggn ctccaccgcg gtggcggccg ctctagacta gtggatcctc ctcatgggcc      60
tggatatctc tgaacatatg atgaacattg cttatgaaaa attatttgta ngaaaattgt     120
gaggcctaag aatgntattt tcttttagtg atggtctttg tttgcttctg taaggnactt     180
gtgggcactc gtaagcttgg atctctttaa tctaatacca gntttgagat tttcttggcc     240
ccatagatga attaaaactg gcgtacttct tgtttacaag anggataagt ctcctagggt     300
aagtcttttg gggtcccaag tcaaaaagat gagggattta ccagttctct aaccttggta     360
gccccagact ccaaactttg ccttctagtc ccaagaggct atcaaaaagc aaaggccatc     420
ttccaccttc ttttccanaa cagcacacat tccagacagt acttgaaagc aggaacctcc     480
ttatccctta aaaacctctt ggaancatct tccctctctt gcttctacta tgcttggccc     540
acctancatt cncnttttc tggaaaccgg aaaaancttn tgacttnngt tggctacatt     600
cagcttggcc ccctacaatn tggtttccat ctgccctaan gaaattttaa agggcacttt     660
ttttntggcc cctgactttc nnttttttagg gctttccccc angctttgcc cctttggtta     720
aagggttat tttccttccc cttttggaag                                      750

<210> 660
<211> 849
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(849)
```

```
<223> n = A,T,C or G

<400> 660
tcggatccac tagtccagtg tggtggaatt cgcggcccgc gtcgacgggc agtagtggta      60
tgcntntcta aatgttataa ttatttcaga attactctgc cagaaagtta tgatcataca     120
tagaagagtt tgtagctaac tttgaaagta gtggaaagtg gttttcatgt attgtttggg     180
ttaatttaat tttgattata tttggttttt agttcaggta attttttgt tgaaaacttc      240
aaatgacaat ttcttcatgg ttactaaaga tcactcatgt ggagtagttt cagattttt     300
tctgaataca tgtattactt ttagagatgt aaagatgtga aattactaag agagaaaccc     360
atgtgatttg tttagtggat caaaagtcgg tagctccttt gatcctaagt gccactgata     420
gttaaataga tactgaagct atgggcaggc tggattgata agaaaaaagg agacagagaa     480
atgggaaatt gggaaagaac tgtgcaaata ggaaaaggag agagcaacag aacagaatta     540
gtaccacagt gccgaagtgc cacctcaggt acttccatct cccatctcct gaagaattca     600
gtaacagttt gcaaatggtc aacacaatca tttagtgatc ctggttgata ttttcaatac     660
tttctgggga tttcttggct ggnttcaaaa gatgatgctg atagtttat tgcccctgaa     720
ggtattctga agnttancat aatttattgg tcagtaaaat atttgaataa aagngganga     780
aggaaaatct ggcntcttat tttgggatnt cngcnggggg aangaggata taattnaccc     840
cggccttgg                                                             849

<210> 661
<211> 653
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(653)
<223> n = A,T,C or G

<400> 661
aacttaagct tggtaccgag ctcggatccc tagtccagtg tggtggaatt cgcggccgcg     60
tcgacctcca ttcgtttctt gtcctttttt ttcattttt ctcatgttct attcacttta     120
ggtttctaag ataaatatta taaaataatt tttacttata aattattcac tgatacctg      180
tctttaacat gtgaaatgaa ttcaaaagga atcttaatga gaaataatat actcatgatg     240
tttaatagat ttgatttcga ataataagc cctctgaagt cctaagttaa aaataaagca      300
acttgtttga taattttca tcaagaatgt atctgagtct ctgagtaatt attagtagga     360
atattccatt atcacaatta cacagtataa gctatttagt ctaactttac caaaaaaggg     420
agctacttca acactgtgtg agacttttaa tgggtttgca ttgggtatgc actattagca     480
agataaccta ttttacagca gtgtttntta accttccca tttatttgaa aggcagctaa      540
gatatagtag ttaatntaan gggctgatgc atttatatta catgtagana atgggagata     600
cnaaagggag nggggggana tnttttgnat tcnnaagctt cnttgncaat taa           653

<210> 662
<211> 646
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(646)
<223> n = A,T,C or G

<400> 662
aaacttaagc ttggtacccg agctcggatc cctagtccag tgtggtggaa ttcgcggccg     60
cgtcgaccca gggacaggca gccagngctg gggtcaccag ggtcccctct tgggccctcc     120
aanagcaaca gtactggcaa cagctgggat ttgctgagca cagactctgc agcaggctcg     180
gttgagctct ctgtgcctgt tccttcatac catcctcacg cccatccatg agatgggtcc     240
agctgttttc agatgagaaa atggcacagg aagctggtaa gtgacagtca gaaatgaatg     300
```

```
ctggcagctt antccttgga cccaccgcag tgcaggacct tgctcaacag ggatcaccct    360
tgtccgccac ctgttcatga ggccacccag ggtttgtgtg gtcatttgtc tcctttcatc    420
tgcttgcctt caaccagctg ggtcattagg gctggggaac ccagacccca cacagtcctt    480
ctcccagang ccagacacan nctncgccac agnaaggact tcagtccccg aancaaatgt    540
ncctgggcgt anaaactgna gggnccccaa tccctggtgg ggtactgctt tgcactggng    600
gaattcaccc ctcattgnna acctttccct nttnncaccc ctaaac                   646
```

```
<210> 663
<211> 650
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(650)
<223> n = A,T,C or G

<400> 663
aacttaagct tggtacccga gctcggatcc ctagtccagt gtggtggaat tcgcggccgc    60
gtcgacgtcg acgcggcgng ccgtttcgac gcagttgata catattatta tatactacat   120
nggttttcta gaattaaaaa attaatgtgt agtgccagcc ctagatgtaa gttacatata   180
tcaactctat ccaattttgt cagccataaa acttaccttt ttcacatact tctaactcta   240
acaatgtgag aaatgtagat cattgcaatt atacccacaa ggcagatggc tacatgcaga   300
atggatagca gaatctagct acttacgcta gccacatggt agacgttttt tcctttgttt   360
ttgcaaaatt gcaatataag ttgcatatcg ttagagtgaa aagatgtaaa gaacccatag   420
aagccagtga tgaaggacat ttatattttc acctttacaa angaccttaa aattgcctat   480
gtggagcaga aactggagga gggcnaancc atcngtaaaa aaaattttgn tnctatttgg   540
atttgggcac cattattacc tccccaggtn cctttttgnt ttaacctttc ttttaaaaaa   600
aataattcnt aatttttggg caaaaaaaaa caaggttttt atttaaattt               650
```

```
<210> 664
<211> 678
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(678)
<223> n = A,T,C or G

<400> 664
taaaaatcta gactacacta ggaaattatt ttantatcag aagaatatca ggggtgtagt    60
actcatcana gctaaatgag agcgctttaa aaatgttagt ttgtcttccg ccatttctac   120
agaaagctgc aatttcaggt tttcaaccta ataggtgata tttaagaaaa aaaaaaagca   180
atcgcaaata gccccactgc ttttacaaat cattttttct cttctaggta tagcctgtca   240
ggtggcctaa tgtaattttt gacatctcta ggaattttaa tagaaccaga aatgggtgcc   300
agagatatgc ctgcactaat cttaagtggg gatttatgta tttctcaagc aagtgattaa   360
agcaaaacta ggcacgattg aaatcaanat cttttaggca agaaagtcat gatgagtttt   420
anaattattt taggactctg tggctttctc ttcatagaaa tagaaaaaaa aaattgtata   480
aaaaccacaa aaggtcctga atagcccaaa gcaacactga acaaangaa caaagcagga    540
agcaacacac taccggaatt caattatact accaaggtgt antaaccaaa acagcattct   600
attgggcata aaatagacca aagaccagtg ggaaacagaa taaagaancc caaataaat    660
cctatattta cngcccnc                                                  678
```

```
<210> 665
<211> 694
<212> DNA
<213> Homo sapien
```

237

<400> 665
```
cttttcaaat catttttnct cttctaggta tancctgtca ggtggcctaa tgtaattttt          60
gacatctcta ngaattttaa tagaaccaga aatgggtgcc agagatatgc ctgcactaat         120
cttaagtggg gatttatgta tttctcaagc aagtgattaa agcaaaacta ggcacgattg         180
aaatcaagat cttttaggca anaaagtcat gatgagtttt agaattattt taggactctg         240
tggctttctc ttcatagaaa tagaaaaaaa aattgtataa aaccacaaaa ggtcctgaat         300
agccaaagca acactganca aaaagaacan agcagggaag caacacacta ccngaattca         360
aattatacta ccagggtgta gtaaccaaaa cagcattcta ttggcataaa atagacacca        420
agaccaatgg ancagaataa agaaccccac aaataaatcc atatatntac cgccanctga         480
ttatcaataa cnaacaccaa gaacatatnt taagggacnt nctattcaat aantagtgct         540
ggnaaaaact gggaaatcca tatgcagaaa naatgaaact agacccctat ccctcaccat         600
acgcaaannt caacttcgga atgggattac aaaacttaag acattccaac ccaagaaact         660
atnaaancta ctattaagaa aacagatcnc nccc                                     694
```

<210> 666
<211> 705
<212> DNA
<213> Homo sapien

<400> 666
```
tttaaaaatt tagatacact angaaaatta ttttagtatc agaagaatat caggggggtgt        60
agtactcatc agagctaaat gagagcgctt taaaaatgtt agtttgtctt ccgccatttc        120
tacagaaagc tgcaatttca ggttttcaac ctaataggtg atatttaaga aaaaaaaaaa        180
gcaatcgcaa atagccccac tgcttttaca aatcattttt tctcttctag gtatagcctg        240
tcaggtggcc taatgtaatt tttgacatct ctaggaattt taatagaacc agaaatgggt        300
gccagagata tgcctgcact aatcttaagt ggggatttat gtatttctca agcaagtgat        360
taaagcaaaa ctaggcacga ttgaaatcaa gatcttttag gcaagaaagt catgatgagt        420
tttanaatta ttttaggact ctgtggcttt ctcttcatag aaatagaaaa aaaaattgta        480
taaaaccaca aaaggtcctg aatagcccaa gcaacactga acaaaaagaa caaagcagga        540
agcaacacac taccagaatt caaattatac taccaaggtg tagtaaccaa aacagcattc        600
tattgggcnt aaaatagacc naagaccaat ggaacagaat aaagaaccca aaataaatcc        660
atattttac agccagctna ttatcaataa aaacnccaag aacnt                         705
```

<210> 667
<211> 817
<212> DNA
<213> Homo sapien

<400> 667
```
nnangacttt tgtggtntta tacaattntt ttttctattt ctatgaagag aaagccacag          60
agtcctaaaa taattctaaa actcatcatg actttcttgc ctaaaagatc ttgatttcaa         120
tcgtgcctag ttttgcttta atcacttgct tgagaaatac ataaatcccc acttaagatt         180
```

238

```
agtgcaggca tatctctggc acccatttct ggttctatta aaattcctag agatgtcaaa    240
aattacatta ggccacctga caggctatac ctagaagaga aaaaatgatt tgtaaaagca    300
gtggggctat ttgcgattgc tttttttttt tcttaaatat cacctattag gttgaaaacc    360
tgaaattgca gctttctgta gaaatggcgg aagacaaact aacattttta aagcgctctc    420
atttagctct gatgagtact acaccccctga tattcttctg atactaaaat aattttccta    480
gtgtagtcta aactttttta aaaagacatg taatccgcgg agtttgtaac tcaaaacgag    540
tgcatctagg aggtatcgca agccgtttct ggattaaatt cccagctagc ttgcttgctt    600
agcagggggcg ggnaaanaag acatctgcag cctagggaag aaaacctttc gcattgttct    660
tacgtgttta cgttattttta tttcctanaa caaggcngaa ttgggactcg aatggttcag    720
ttggggtggg ggatcccctg gtncataaaa ngtcanaaag anggtacagg cggaacncca    780
agggtcgtcc tgcatttana ctcggaattt tggtgcc                            817
```

```
<210> 668
<211> 826
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(826)
<223> n = A,T,C or G

<400> 668
cgggggggnnt tacgtctctc tggacgcttt tattgtacca gggcgatccc agcccaactg    60
taccattcga gtccctactc ctgccttgct ctaggggaaat aaaataacgt aaacacgtaa    120
gaacaatgcg aaagcgtttt cttccctagg ctgcagattg tcttcttcac cgcccctgct    180
tagctagcta gctagctggg aatttaatcc agaaacggct tgcgatacct cctagatgca    240
ctcgtttttga gttacaaact ccgcggatta catgtctttt taaaaaagtt tagactacac    300
tagggaaaat tattttagta tcagaagaat atcaggggggt gtagtactca tcagagctna    360
atgagagcgc tttaaaaatg ttagtttgtc ttccgccatt tctacagaaa gctgcaattt    420-
caggtttttca ncctaatagg tgatatntaa gaaaaaaaaa acaatcgcan atagcccact    480
gcttttacaa atcatttttc tcttctaggt atagcctgtc aggtggccta atgtattttt    540
gacatctcta ggaatttttaa tagaccagaa atgggtgcca gagatatgcc tgcactaatc    600
ttaagtggggg atttatgtat ttctcaanca agtgattaaa gcaaaactag gcacgaatga    660
aatcaagatc tttaggccag aaatcatgaa nanttttana attattttan gaatctgtgg    720
cttctcttct taaaatngaa aaaaaaattg tttaaaccca naaggtctga atacccaagc    780
nccctgaacn anagaacaan gccggagcac ccctccccaa atcccc                  826
```

```
<210> 669
<211> 547
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(547)
<223> n = A,T,C or G

<400> 669
cattgtgttg gggaaaaaat gatttgtata agcagtgggg ctatttgcga ttgctttttt    60
tttttcttaa atatcaccta ttaggttgaa aacctgaaat tgcagctttc tgtagaaatg    120
gcggaagaca aactaacatt tttaaagcgc tctcatttag ctctgatgag tactacaccc    180
ctnatattct tctgatacta aaataatttt cctagtgtag tctaaacttt tttaaaaaga    240
catgtaatcc gcggagttag taactcaaaa cgagtgcatc tnggaagtat cgcagccgtt    300
nctggatnaa attcccagct tgctngcttg ctnagccggg gggcggtnaa aaaaacatct    360
gcagcccngg ggnaaaaacc ttcgcattgt tcttacgtgt ttacgttatt ttatttccct    420
nnagcaaggc ngggganttgg ggactcgaaa tggtacagtt gggctgggga tcgcccttgt    480
tacataaaag ncgtccagaa gagggacggt tacaggcngg ganctccaaa ggtcagtccc    540
```

239

tgccatt   547

<210> 670
<211> 232
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(232)
<223> n = A,T,C or G

<400> 670
cgaactattt agactaccta ggaaaattat tttagtatca gaagaatatc aggggtgtag   60
tactcatcag agctaaatga gagcgcttta aaaatgttag tttgtcttcc gccatttcta   120
cagaaagctg caatttcagg ttttcaacct aataggtgat atttaanaaa aaaaaaaagc   180
aatcgcaaat agccccactg cttttacaaa tcattttttc cccaacacaa tg   232

<210> 671
<211> 214
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(214)
<223> n = A,T,C or G

<400> 671
ctccccttcc ntccttcgct actncncatt ttcnnaaatt tntttcgcnt atgnggaaaa   60
acacccacat tnttcanctc gcacagaaca ngnnggggtg tgtaaaatga agggcttccn   120
cnctttctct tattnaanaa cactnaaana gggangggct aaaacccgcg ngatntctac   180
nctatcgcgg gcgcttttgg ngttggctag aaga   214

<210> 672
<211> 328
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(328)
<223> n = A,T,C or G

<400> 672
ngancagcgg ngtttaaacg ggcctctaga ctcgaggaga cncctgttgg atggtggatc   60
acanntcgnt actactatac aggacagagt atcggganct cttggntgtt ggngcctgcc   120
aaccactgct nctgttaact gcgtatctga agggactcgg actggcttca gaagaactac   180
cggctcgaat gnaccatgga tgattcncnc tagttgaaaa aaaactcagg cacatgtatt   240
gccactgatg actagcgcca gactnctctc ggctctntaa cgagcccaca tgncngtgtg   300
ncncccgtgc tgnctccaga agaggttc   328

<210> 673
<211> 223
<212> DNA
<213> Homo sapien

<220>

240

```
<221> misc_feature
<222> (1)...(223)
<223> n = A,T,C or G

<400> 673
gggggcaaag ctggctagcg tttaaactta agcttggtac cgagctcgga tcccnnagac    60
attgtgcatg aaaatgcaaa ttgagtgtgg tctatantgc catcntcacc tnctgncngc    120
tcaaaacaac ngctttctgc tgcaatgggt agggctcctn acncacggtc gcnnacggag    180
gccnncttat cctcntcggt nnggatccct ngaagcatnt tct                      223

<210> 674
<211> 256
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(256)
<223> n = A,T,C or G

<400> 674
gnggggtcnt ngatgagcgc gcgtaatacn atcactntcn ggcgngntgg gtaccgggcc    60
cccctcnaa gcggccgccc ttttttntt ttttttcatn acatgataan ntctttnttc     120
taaacagacc acaccactan agttcctttn ctttngtacg gaattgagtt aaagtagagn    180
atacaatgca gggcttcnnc tctatttcac attccaggnt ggttcngnat ggatcggccc    240
tgcctctccg atgggt                                                    256

<210> 675
<211> 439
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(439)
<223> n = A,T,C or G

<400> 675
nnactagtcc agtgtggtgg aattccattg tgttgggctt gtatgggttt ttttgtctag    60
ttntttggga aatgttngtg ttactatntt ttggatatna tatatgatat gtatggccct    120
tctatgggct cctcanacng aactcaacca ttttccacaa aaccnattcc tcctttccct    180
tcatgactga gtggtgttgg tactatccng gaaactggga cattgtcctt cacatctntc    240
ccttanctgc ctngtccnat tgatgtcttt gagctntgan atgtctttgt taactntctc    300
ctncntctgt actgccggca naattaagca ccatntgtca caaaaagtat tgcgttacct    360
tcacgnatct gttngttncc atncttgctg cttctccngn ggaaaatagg ctnttctggc    420
aaccgaacng aanaaaatac                                                439

<210> 676
<211> 587
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(587)
<223> n = A,T,C or G

<400> 676
```

241

```
nggnggcctn attaagcgcg cgtaatacna ctcactntgg ggcgaattgg gtaccgggnc          60
cccctcaagt tnatntgccn aacctctctt ttggaataac aaaaggttta acacatatgt         120
cctcataggg acgcgctttc acacnttcct gacngcttca tanacntcat tnctatttct         180
cctcagnaca agttnaggcn gaaggtgagg canacnttat aatttccatt tcacaaatnc         240
ggaaagtgag gctcaaaggg nttaaaaaat aacctgatac aantcataga gccggtntct         300
ggaanaagca ggagcaaagt ccaggcatcc tgatccaagc tnggtccact gccttccact         360
ctggagaggc ttcatctccg acaaaggaag ggacntgagt ggctgganaa tctcatggga         420
taaagacctc agnatttcat gctcctggaa atcccatggg ttgaacaaca ggtntttggc         480
ccgtggttct ntccctttgn ccatctttta accttggggt aaatgatggc ntctntnagc         540
nttttttttn aaagagatng aaattgaatg attattngct cattggg                      587
```

<210> 677
<211> 444
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(444)
<223> n = A,T,C or G

<400> 677
```
gtggggcatn attaagcgcg cgtaatacga ctcactatag gggcgaantg ggtaccgggc          60
cccctcgaa gcggccgccc ttttttttttt tttttactgt ccaaactntc tatngatnta         120
gttgaactgt ncaacgattt catgaaattc tatacacana gccttcaggt ccagagagta         180
aaacaaattt aaatttnttc accanattgn agcagncana agcatccnat natatccgac         240
tacaatgaat natatgctna nggtanctna tttacccact ntggggtctt tanggtctgt         300
cacaaactat tttcgtaaac atcnntttaa anttnggtga atggacctaa tnccagataa         360
ntctatttna tntaccctag catncctgtg gctnactttn cgggctgtgt tggcntactt         420
ttaggagaaa attggtataa atnn                                               444
```

<210> 678
<211> 670
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(670)
<223> n = A,T,C or G

<400> 678
```
actagtccag tgtggtggaa ttccattgtg ttgggagcag tttaaaaaaa aaaaagacna          60
aatatacnac tcttgatnaa acataaaggt acagtggtct atgaggaana gaaaaggtac         120
ctnaggatgc aaaantacct accacatggg aaccgttngt ccacactcat tccnnanaaa         180
accgagtcct ctcanttnca cacgtgtacg tttcagttgg gaagtgcttg ccattactcc         240
naagcctaga accttcacgt cctgaaggtt ctggaaggtt tttcagattg cttaaganac         300
gcngcccttc catattcntc tccactaccc nggggaacgg aacaaatgga gctgcgacng         360
ggaagcgtcc cttcccntcc gaacgctttc tttcaaacct gcctgccttc cnggcgaatg         420
gaccggaagg tttnctngct tcctttcanc ccnaattact tcctgngttg aaaattggcc         480
tgttggtttg caaatgcngg aatttgttta ctttcntcat gtcctgtgtt gnncnaaccg         540
gctcncttgt tgcctccctt tngaaaggtt ttcatcaggc cccgcccttt ctcttntaan         600
ngtcctaatc cggncnggac cactcgggga aaattttttc ttttcgaaaa gccgccccnt         660
ccgtccggct                                                               670
```

<210> 679
<211> 449
<212> DNA

242

```
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(449)
<223> n = A,T,C or G

<400> 679
actagtccag tgtggtggaa ttccattgtg ttgggagtag gtctactaca ncctacttcc      60
cctatcatan aagancttan caacnttcat gatcccccc tcntanncct tttcctcanc      120
tgcntcctag tcctgtttgt cctnttccta acantcntaa ganagatnac taatnctact      180
atctctnacc tccggaanct acaanacgtc tggaactatt cngaccccat gcanccncat      240
nctccatcgt cctcccagcc cctncccttc ctttacntta ctnaacgaag gtcgacgatc      300
cctcccntac ctcccnnncc attgggnccc aanggnactg gacctcacga ntacaccnac      360
tacggggnga ctaagnctgn aactccttac atatntcccc gttacccccn gaacncagcg      420
aacngcnaca ccttggacnt caagaanta                                       449

<210> 680
<211> 670
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(670)
<223> n = A,T,C or G

<400> 680
tttcngtgtg gtggaattcg cggccgcgtc gacgagaaga nggaggagga naaggagaag      60
gagaagaagg agaanaagga ggagaaggag aagaaggaga agaaatcatc atcatcatca      120
tccactgtct ngcaactatt taagtttgcn antcccttga aaacaggtac ttttgtttca      180
atgtttggga ccactnctga cnatgannag aanaccaata aatgcttgat naatgaaaaa      240
nccacttttt acctgttaga accctgaggc taagagaant gatgtgactc gacttagtta      300
ccacaaacta tgatcctagc atnaattggg gcatctcaac acctcaactc cctgtgcaag      360
aacagatttt caatgtctac tgatgatttt aaatggatta nttcctctct ttacttctta      420
agggcatgaa gntttatgaa acaaaactat ncagttccag acgcttaacc cacatagtgt      480
taatagtcac cttcaacaca cnactaaacc cccaaaaaan gnttttacg gngtttcgac       540
agtttctttt tcttttgac ttgnttaaca cccnngacaa ctttgtnctn tttccntgaa       600
tcacanctttt cnaanancca atggtncggt tttttctcnt tcngggccct tcccttnttn      660
aaaaccanat                                                            670

<210> 681
<211> 494
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(494)
<223> n = A,T,C or G

<400> 681
tcatggtgtc cacagtctga tgtgagcgca ttaaatttaa ggatctccgc ccttctcctt      60
aaaactcagg acttggcaat gancctagga agcgccctc ccctccccan ccanatccaa      120
gccccggacc gctgcgnctc cagctgcgcc tagtgaaacc gccgaattcg aattcacact      180
cggngggccg gcgaaggtgt gcgcgcccgc gggagcgccg gggcnagccc gagggactgc      240
aagccaanaa nggaggcatg ggtggcgggg ggcgccgtct gatccaggaa ggagcggagg      300
cgccgatcac acactcttna gacgccctgc ccgcgcctgg ccagcgcgca gnctgcagga      360
```

243

```
cgcgcggagc aggaactcgc tggagtttgc caagccccan gnctctggaa agtntgtagc      420
tccctttcgg ancgnctctt ctggcccttt gggacgggtg tgtcattggg cgggggtctg      480
tataaggggg ggac                                                        494
```

<210> 682
<211> 263
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(263)
<223> n = A,T,C or G

<400> 682
```
tgatcattca agcgntgngc gnataacgat tgctnagccc aacctttcat agggtcgttc       60
ctttgggaat nggatgtcta ttgaatggca gggatagggg cactcggcat tcgcctctgg      120
tacagttttg catatatatc ctcatcgcga gcgagcgtag gggancgtta agtttggggga     180
aatgccnccg catgnccctn ccggagctta aaccccccaac aatncccatt ttnaaaaaag     240
ntttnttant taaaaaaaaa aac                                              263
```

<210> 683
<211> 255
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(255)
<223> n = A,T,C or G

<400> 683
```
cttgcccggc atgcacagac ntntttacgg acacnctact ccaagngagc ctgnanctgt       60
ctacggtcaa nctctaaggt tngncantgc cacanatggc atagtcccga gggcggtnan      120
tctggantgc tctctgcact tgaacntaaa gcgcntttca aganaggnct aatngcctgc      180
ctcttgacaa cnaacaancc cacaccnacc tangaccctn tangcaagga ctggattctg      240
naaatgcaat acaca                                                       255
```

<210> 684
<211> 922
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(922)
<223> n = A,T,C or G

<400> 684
```
acccttcatt tcatgtgctt ctattttcct acatctttta catgactaag ggattaatga       60
aatcacctct tcataatcat gaccataatt tcatccaaca agtactcaag tttggtgtta      120
gcactttatt aatgcttacg aattctctct ctctccctct ttctcttttc cttagtcctt      180
gcacaataag gatttttgaa tgtataatat catcttaggt aagctttcat atggttttgg      240
catatgaagc ttatgactgt cataagccat accaagcctg tggagtatgg catgattttc      300
attacataat ccaatgaaaa tagacttatt ttaaatccct aactttgtag ttttaatttg      360
tatttcacta tcttgaaatt aacagctagt acttatccat cacagcagtc tcctactgac      420
atgaagcaag ttgttgaatg cagtaganca tgaatgaaag catttaatgt tanacaaaaa      480
tgggtgatac ccaagcattc tgaattattt gcatcaagga atgggacatg tacattagtg      540
```

244

```
gcatcatttc taccaatatg tgacttgaat tgttttttta aaaaaaggan aatgantttc    600
tcaatttgct ttaaaaaatt ttnaaaaagt tcaatggcat gctgctttgt ctggacttaa    660
tttattaaca attnttaanc cttccttaag gacanaattt tggtgttcag gatcnccctg    720
aagggtctta tttttnatan nattccaaac ccaaaaggtg gtttaaaatg ggngggttcc    780
ccccncnaaa atttggaccg gctttttat atttaaaaaa nttnccnttt gngtttgaaa    840
nctnaatacc aattaagggg gaattttacc tnccagtggg aaaaaaaaac nctngccntt    900
naaaaaattc ccnggagnca at                                            922
```

\<210\> 685
\<211\> 531
\<212\> DNA
\<213\> Homo sapien

\<220\>
\<221\> misc_feature
\<222\> (1)...(531)
\<223\> n = A,T,C or G

\<400\> 685
```
tgaggctctg taaaactgtt cctctgctag gcatacttca tattctctat attaaactca     60
tctttaattg gcatggaaga ttcattgttc caaatctcag atgaagatcc tatattggat    120
gcaattaagc ctggcagcgc cctcaaaaga cagtcttgtc actgctagcc acagccagga    180
cacagtaaca gttccttcta gtgacccnag accataanaa atananatct aaagaattct    240
gactccaaag gcattagccc attcctggta ttgccaatta tgatagaaaa aattgccaag    300
ctcctgggac atggaaatac actcagtaca tttgagaact ggagaactan tttccaaaat    360
agtatgaaga catganggtg attgtagata tntgagtttg gagaanttga gggaaatcng    420
attacacatg tttactacaa gagatgttna taagtaaaga aggcctgata tacaatctaa    480
cagacnantg agataaatct taantcacaa ctgacntccc ttttggggcg g            531
```

\<210\> 686
\<211\> 336
\<212\> DNA
\<213\> Homo sapien

\<220\>
\<221\> misc_feature
\<222\> (1)...(336)
\<223\> n = A,T,C or G

\<400\> 686
```
ggngncctna tgagcgcgcg taatacgatc atatagggcg aattgggtac cgggcccccc     60
tcaagaacac tacaagctat gtcctcttct canagagccc tgaanttta acatattgaa    120
agctctnatc ttgccaaana actccactta acttcaaaac acaccctcca cacacatcat    180
gatcaactna gatcttactg aaccagaatc ctnaatggca tacttcagga acaggggtcc    240
anagaagcag ttctcaaant gcagctnaaa aagaaactga aaacccaatt catgcaanac    300
ctaggcttaa tttgagagca ttttccagtg cagatt                            336
```

\<210\> 687
\<211\> 271
\<212\> DNA
\<213\> Homo sapien

\<220\>
\<221\> misc_feature
\<222\> (1)...(271)
\<223\> n = A,T,C or G

\<400\> 687

245

```
aatctgcact ggaaaatgct ctaaaataag ccctaggtct tgcatgaatt gggttttcag        60
tttcttttta agctgcactt tgagaactgc ttctctggac ccctgttcct gaagtatgcc       120
atttaggatt ctggttcagt aagatctcag ttaatcatga tgtgtgtgga gggtgtgttt       180
tgaagttnag tggagttctt tggcaagatc agagctttca atatgttnaa acttcagggc       240
tctctgagaa gaggacatag cttgtagtgt t                                      271
```

<210> 688
<211> 740
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(740)
<223> n = A,T,C or G

<400> 688
```
tgatgaagcg cgcgtnntac nactcactat nggggcgaan tatgggtacc gggnccccct        60
cgaagcggcc gccctttttt tnttttttttg tgagagttta aataaaatat ttgagtttaa      120
tttaaagttt gagtttaatt aaaatatatg gcatatccca agttgggctt tgcanaaaga       180
acacttctca ggaactgtta gttggtgtac caggaactca gaagggtcct gttattaaat       240
atatttggaa aatgcatgga ttctctgaan atcnctctgc atgtgagcaa cacttacatc       300
ncaaaccaaa attggcattg catacatnaa ccaatatttc ccaaacattt ctggttatgg       360
cccacccct ttgtgtanta cttattgctg ttttttggaa ccctggggaa attacttaaa        420
atattcagct ggaaattaca ggcgttactt ttaaggganc aagaattaca gtgactccca       480
aaattgcaag tgttgattac tatttaagaa cccaagaatt tgaaagaaat tttgaaaagt       540
gaaaacngga aatnttaaat gacttctcaa attttgaaaa ctcnggnaaa catctccact       600
ttggtncccт tcctttaaaa attggctaaa aattntttnt tatncccacc ccattggaan      660
tnccccccc ctggaacaat tggattcccc tatttcctaa aaaacggccn ccccccccgg        720
ggngaacncc nacnttttgn                                                   740
```

<210> 689
<211> 635
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(635)
<223> n = A,T,C or G

<400> 689
```
actagtccag tgtggtggaa ttccattgtg ttgggattac atatactttt agcaattttt        60
aaagaagtgt acaaagttga gatgtttcct gagctctcat atatctgana atgtcatttt       120
acatctccgt cttcacctct caaaacttct ttcaattctt tggctcttaa tagtaatcaa       180
cacttgcact ctggagtcac tgtaattctt gctcctttac agctacncct gttatttcca       240
gctgaatatt tttagttatt tcccaggggtt ccaaaaaaca gcaataagta ctacacaaag      300
ggggtgggcc ataaccagaa atgtttggga aatactggct catgtatgca atgccaaatc       360
tggtttgcna ttgtantgtt gctcacatgc agagtgaatc ttcaaanaat ccatgcattt       420
tccaaatata tttaataaca gggaaccttc tganttcctg gntacaccaa ctaacagttc       480
ctgaaaaatg ttctttctgc aaaacccaac ttggggatat gccatatatt ttaattaaac       540
tcaaacttta aattaaactn caattatttt attttaaact cctcaaaaaa aaaaaaaaaa       600
agggggggcc cttccaangg ggggnccggt tcccc                                  635
```

<210> 690
<211> 3923
<212> DNA
<213> Homo sapien

246

```
acagaagaaa tagcaagtgc cgagaagctg gcatcagaaa aacagagggg agatttgtgt        60
ggctgcagcc gagggagacc aggaagatct gcatggtggg aaggacctga tgatacagag       120
gaattacaac acatatactt agtgtttcaa tgaacaccaa gataaataag tgaagagcta       180
gtccgctgtg agtctcctca gtgacacagg gctggatcac catcgacggc actttctgag       240
tactcagtgc agcaaagaaa gactacagac atctcaatgg caggggtgag aaataagaaa       300
ggctgctgac tttaccatct gaggccacac atctgctgaa atggagataa ttaacatcac       360
tagaaacagc aagatgacaa tataatgtct aagtagtgac atgtttttgc acatttccag       420
cccctttaaa tatccacaca cacaggaagc acaaaaggaa gcacagagat ccctgggaga       480
aatgcccggc cgccatcttg ggtcatcgat gagcctcgcc ctgtgcctgg tcccgcttgt       540
gagggaagga cattagaaaa tgaattgatg tgttccttaa aggatgggca ggaaaacaga       600
tcctgttgtg gatatttatt tgaacgggat tacagatttg aaatgaagtc acaaagtgag       660
cattaccaat gagaggaaaa cagacgagaa aatcttgatg gcttcacaag acatgcaaca       720
aacaaaatgg aatactgtga tgacatgagg cagccaagct ggggaggaga taaccacggg       780
gcagagggtc aggattctgg ccctgctgcc taaactgtgc gttcataacc aaatcatttc       840
atatttctaa ccctcaaaac aaagctgttg taatatctga tctctacggt tccttctggg       900
cccaacattc tccatatatc cagccacact catttttaat atttagttcc cagatctgta       960
ctgtgacctt tctacactgt agaataacat tactcatttt gttcaaagac ccttcgtgtt      1020
gctgcctaat atgtagctga ctgttttttcc taaggagtgt tctggcccag gggatctgtg      1080
aacaggctgg gaagcatctc aagatctttc cagggttata cttactagca cacagcatga      1140
tcattacgga gtgaattatc taatcaacat catcctcagt gtctttgccc atactgaaat      1200
tcatttccca cttttgtgcc cattctcaag acctcaaaat gtcattccat taatatcaca      1260
ggattaactt ttttttttaa cctggaagaa ttcaatgtta catgcagcta tgggaattta      1320
attacatatt ttgttttcca gtgcaaagat gactaagtcc tttatccctc ccctttgttt      1380
gattttttttt ccagtataaa gttaaaatgc ttagccttgt actgaggctg tatacagcac      1440
agcctctccc catccctcca gccttatctg tcatcaccat caacccctcc cataccacct      1500
aaacaaaatc taacttgtaa ttccttgaac atgtcaggac atacattatt ccttctgcct      1560
gagaagctct tccttgtctc ttaaatctag aatgatgtaa agttttgaat aagttgacta      1620
tcttacttca tgcaaagaag ggacacatat gagattcatc atcacatgag acagcaaata      1680
ctaaaagtgt aatttgatta taagagttta gataaatata tgaaatgcaa gagccacaga      1740
gggaatgttt atggggcacg tttgtaagcc tgggatgtga agcaaaggca gggaacctca      1800
tagtatctta tataatatac ttcatttctc tatctctatc acaatatcca acaagctttt      1860
cacagaattc atgcagtgca aatccccaaa ggtaaccttt atccatttca tggtgagtgc      1920
gctttagaat tttggcaaat catactggtc acttatctca actttgagat gtgtttgtcc      1980
ttgtagttaa ttgaaagaaa tagggcactc ttgtgagcca ctttagggtt cactcctggc      2040
aataaagaat ttacaaagag ctactcagga ccagttgtta agagctctgt gtgtgtgtgt      2100
gtgtgtgtgt gagtgtacat gccaaagtgt gcctctctct cttgacccat tatttcagac      2160
ttaaaacaag catgttttca aatggcacta tgagctgcca atgatgtatc accaccatat      2220
ctcattattc tccagtaaat gtgataataa tgtcatctgt aacataaaa aaagtttgac        2280
ttcacaaaag cagctggaaa tggacaacca caatatgcat aaatctaact cctaccatca      2340
gctacacact gcttgacata tattgttaga agcacctcgc atttgtgggt tctcttaagc      2400
aaaatacttg cattaggtct cagctggggc tgtgcatcag gcggtttgag aaatattcaa      2460
ttctcagcag aagccagaat ttgaattccc tcatctttta ggaatcattt accaggtttg      2520
gagaggattc agacagctca ggtgctttca ctaatgtctc tgaacttctg tccctctttg      2580
tgttcatgga tagtccaata aataatgtta tctttgaact gatgctcata ggagagaata      2640
taagaactct gagtgatatc aacattaggg attcaaagaa atattagatt taagctcaca      2700
ctggtcaaaa ggaaccaaga tacaaagaac tctgagctgt catcgtcccc atctctgtga      2760
gccacaacca acagcaggac ccaacgcatg tctgagatcc ttaaatcaag gaaaccagtg      2820
tcatgagttg aattctccta ttatggatgc tagcttctgg ccatctctgg ctctcctctt      2880
gacacatatt agcttctagc ctttgcttcc acgacttta tcttttctcc aacacatcgc        2940
ttaccaatcc tctctctgct ctgttgcttt ggacttcccc acaagaattt caacgactct      3000
caagtctttt cttccatccc caccactaac ctgaatgcct agaccctat ttttattaat        3060
ttccaataga tgctgcctat gggctatatt gctttagatg aacattagat atttaaagct      3120
caagaggttc aaaatccaac tcattatctt ctctttcttt cacctccctg ctcctctccc      3180
tatattactg attgcactga acagcatggt ccccaatgta gccatgcaaa tgagaaaccc      3240
agtggctcct tgtggtacat gcatgcaaga ctgctgaagc cagaaggatg actgattacg      3300
cctcatgggt ggaggggacc actcctgggc cttcgtgatt gtcaggagca agacctgaga      3360
```

247

```
tgctccctgc cttcagtgtc ctctgcatct ccccttttcta atgaagatcc atagaatttg    3420
ctacatttga gaattccaat taggaactca catgttttat ctgccctatc aattttttaa    3480
acttgctgaa aattaagttt tttcaaaatc tgtccttgta aattactttt tcttacagtg    3540
tcttggcata ctatatcaac tttgattctt tgttacaact tttcttactc ttttatcacc    3600
aaagtggctt ttattctctt tattattatt attttctttt actactatat tacgttgtta    3660
ttattttgtt ctctatagta tcaatttatt tgatttagtt tcaatttatt tttattgctg    3720
acttttaaaa taagtgattc ggggggtggg agaacagggg agggagagca ttaggacaaa    3780
tacctaatgc atgtgggact taaaacctag atgatgggtt gataggtgca gcaaaccact    3840
atggcacacg tatacctgtg taacaaacct acacattctg cacatgtatc ccagaacgta    3900
aagtaaaatt taaaaaaaag tga                                             3923
```

<210> 691
<211> 882
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(882)
<223> n = A,T,C or G

<400> 691
```
ttactcacta tagggctcga gcggccgctg aattctgctg cagtgagctg tgattatgtc      60
cctgcactcc agcctggatg acagaacacg atcatttctc taaagacaaa caaaaaacat     120
aaaataaaac tagtataagg atagaagccc agggttgatt taagtctgcg gaaatcataa     180
accataggtc agacttctca ttgatgaggt acttgtgggt tagaatacaa ttaggtatat     240
ttggtctaga aaccaggatg gaattagaga ataaaagact gagcaatagc atgttatagt     300
attagaaata ctatagaaat aggaaaagcc ctgattatga ctttggagtt ctgatccaac     360
atctgggatt atttagatat tttaaaggaa aacgatgact tttagctctc aggatgttag     420
tttcctcaac cataaaatga agagcctcga aaagatttcg tttaccagat tatttctgaa     480
gtcaattcca gttctaaaat tccatcactg ngcactaagg caaattgaat tgaataaagt     540
attgggnatg cataaaatac tctattttta aaaangaata gtaattatcc attggnaaca     600
gacgcantca tccagncatc tcctaccctg ncccatgncn tatgtagana tgtanctcta     660
atcccttaac aaaccgattt tgcaaggag cttanccttg gggtacttgg tcanggcaac     720
tggtctactt tnaagactca tcttcactta ctgggcacca aatncctacc attgcatcaa     780
actggggttc ccatncaagg caaaccctgn gaaatcttta atcccgaaat tggcgcccaa     840
ttttgngggg tttccnaaaa gaatcntccc ccccgagggg cc                        882
```

<210> 692
<211> 235
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(235)
<223> n = A,T,C or G

<400> 692
```
ccgcactngt aangnccgcc agngngctgn aantccgctn agcncggatc cactagtcca      60
ttgatggtaa aagggtagct tactggnatg tccgnctgct ccanganata atacncagga     120
cttctcanag cacttaatat gttaatataa aactncgnga aaaaagatnt tcnatgaanc     180
nttcctctta ggaggtcagg ngagaatagt gttaatgnca ttaaggganag aacga         235
```

<210> 693
<211> 383
<212> DNA
<213> Homo sapien

248

<220>
<221> misc_feature
<222> (1)...(383)
<223> n = A,T,C or G

<400> 693
nttatgtaag aaatgtcata tatctttat tttctttaaa tcaaaataaa tatgactttg   60
agcatcccat cccatgcccc atcctatcag aatggtagga acatcaacac aaataaattag   120
taatgcaccg catctacatt cccatgctct ctttacttct tcagcattgc ctaaaggcat   180
aatacacctt taattaatta attcagcctc ctaatgcaca ttaacaaagc ccctgctaga   240
ctctgtccat aatggnaaac ctgnatgatc cttgatatta acantttaag gaatgctcat   300
ggattggttn cagacttaaa aaattgaggg ggctgaanaa aatctaangg anaaatcatg   360
gaagcatttg cacatattac ata   383

<210> 694
<211> 204
<212> DNA
<213> Homo sapien

<400> 694
tctcttggct ggtcagcctg aagggtggta atgactcacc aacgctacta atccttcttc   60
actgtccctt attttttttcc ctcccaggct cataactcga ggttaaactc tcttttatac   120
aagaaccctg tctgatgaag catcatttca gaattttaag tcaacttaca aatgtggtat   180
tattcacatc tgagtacaaa ttta   204

<210> 695
<211> 670
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(670)
<223> n = A,T,C or G

<400> 695
gcaccagccc aggtgctgtt tcttcacttg agctccatga ccctccctgt gtggtgggtt   60
gaacggtgac ctccaaaaga tatgtccacc tggaacctca gaataagatc ttatttggaa   120
tagtctttgt agatgtcagt aaggtaaaga tttggagatg agaccctcct ggattagggt   180
aggccctagg tccactggca ggtgtgcttc tcagggtctg aaaggggaag acagggccac   240
ccagaggagg agacggaggc agagacaggg ccacccagag gaggagacgg aggcagagac   300
agggccaccc agaggaggag acggaggcag agacaggggc cacccanagg aggagacgga   360
ggcagagaca gggccaccca gaggaggaga cggaggcaga cacagggcca cccaaaggag   420
gagacggagg cagaanacag gcccccccaa agaaganacc ggaggcanaa aacagggcca   480
cccanaggag gagacggagg canaaacagg gccaccccaa aggaggagac ggaggcaaaa   540
cagggccacc caaaggagga agccggaag gaaaaaacag ggcccccccaa aggaggaag   600
ncggagggcn aaaaanaggg cccccccaa agngagaaaa ccnggnaggc nanaaaaccn   660
ggggcccnnc   670

<210> 696
<211> 317
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(317)

249

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<223> n = A,T,C or G

<400> 696
tgacccgttn tttctgcaaa ggagagtggg gaaggagggn tgggaagaca aaagttacat      60
gttagcaggg aagagaacag aattttatcc acccttatct ctttagtgag tgaacaaaca     120
gcccactgtc atcgtggata catttcactt ttttcacatg actaaggagc tctccggagt     180
gaagagtgag taaatatgtt tattacgcat tcatttgcta agaatcatca agaacccaaa     240
gttagagacg tttcgtggtt gaactttctc cctactgtct agtagaatta tatggggatt     300
ctggatctgc tggtgcc                                                     317


<210> 697
<211> 246
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(246)
<223> n = A,T,C or G

<400> 697
ctncagctct aatcgactnc tatnaggnat gatggcncgt gcngcgcgta cgtantgctt      60
ggatcctcnn anagcggacg cctactacta ctaaattcgc ggncgcgttg acttttttg     120
ttttttttcct tnacagagnt nttttttgtgc ccttggttct tatgctcana ctcngcaaaa     180
aanatcaaaa gntacnnatg aaaaacntat nccatctnca naaggaggt gnagntatta     240
ctttct                                                                246


<210> 698
<211> 3674
<212> DNA
<213> Homo sapien

<400> 698
agaaagtttc cttttttttt tttaatggtg aaaagatata cacatattta gaattagcca      60
gctgggctca gtttagatta ttccaatttt gttggcaaca tccagagcat cgtaatcagg     120
agccagtgaa acatattcct tcttctctcc atcaggccaa atcacggtgt tgaccttggc     180
cacatcaatg tcttagaact tcttcacagc ctgtttgatc tggtgcttgt tggctttaac     240
atccacaatg aacacaagtg tgttgttgtc ttctatcttc ttcgtggtga ctcagtggtc     300
agcggaaact tgatgatagc gtagtggtca agcttgtatc tcctgggagc gctcttccaa     360
agatatttgg gctgcctcgg gagttgcagc gtcttgggcc gccggaaggt gggtgacgta    420
cggatcttct ttttttgtgt ggctgtggac acctttcaac actgtcttct tggcctttaa     480
atccttcgct ttggtttcgg ctataggagg ggcaggagct tccttcttca ctttcggcgc     540
catcttgtga aaagggaaag tttcctttct aataccattt tcacttctcc cgaattttgt     600
ggatcgtttc ttggtatcta ccccagattt caggagtgtt ggctggatct tagggattgt     660
gaagtcttca tttccctgtg gtgagatctg aggcatgatt ttaaacagtg tgagggaagg     720
agatctccag gcactttaat agaatggaga agcaggatgg gatttgagag gaaatctgat     780
tttgaaaaaa ggagaactag agttgagttc gtaattaact agcaccttaa aggtcattca     840
gcatgcccat ctgcacagtg ggtgtaatca ccctacagaa caaaaacaaa aaggcaatgg     900
agaggaagct gtaaagcact gtacatgttt aactcattgt tatgtaagct agccgaaggc     960
ttcacagact tgaattcatc tcccaagttc tcttcctgta ctggaaactc tgccttaggt    1020
tgcttaaaac ttgagaaaca gaatattgct tcccctgcct gccttcttga gtacacttgc    1080
ctacacaaag atgcacatcc ttgtttgtgt gtgtgtgtcc atttgctgtg acattcttgt    1140
gaaagtcaaa gtttcccagc tgttgacata cacaagtttg tttggtgcaa cctgtcagat    1200
gcatccctta gacaggccct ttgatactct gggaaagaca ttggacttac agtcggaacg    1260
aaaagaaaga aatgtgatat gtatagcgtg cagtgagttg gagtttttacc tgtattgttt    1320
taatttcaac aagcctgagg actagccaca aatgtaccca gtttacaaat gaggaaacag    1380
gtgcaaaaag gttgttacct gtcaaaggtc gtatgtggca gagccaagat ttgagcccag    1440
ttatgtctga tgaacttagc ctatgctctt taaacttctg aatgctgacc attgaggata    1500
```

250

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tctaaactta gatcaattgc attttccctc caagactatt tacttatcaa tacaataata    1560
ccacctttac caatctattg ttttgatacg agactcaaat atgccagata tatgtaaaag    1620
caacctacaa gctctctaat catgctcacc taaaagattc ccgggatcta ataggctcaa    1680
agaaacttct tctagaaata taaaagagaa aattggatta tgcaaaaatt cattattaat    1740
ttttttcatc catcctttaa ttcagcaaac atttatctgt tgttgacttt atgcagtatg    1800
gccttttaag gattggggga caggtgaaga acggggtgcc agaatgcatc ctcctactaa    1860
tgaggtcagt acacatttgc attttaaaat gccctgtcca gctgggcatg gtggatcatg    1920
cctgtaatct caacattgga aggccaaggc aggaggattg cttcagccca ggagttcaag    1980
accagcctgg gcaacataga aagaccccat ctctcaatca atcaatcaat gccctgtctt    2040
tgaaaataaa actctttaag aaaggtttaa tgggcagggt gtggtagctc atgcctataa    2100
tacagcactt tgggaggctg aggcaggagg atcactttag cccagaagtt caagaccagc    2160
ctgggcaaca agtgacacct catctcaatt ttttaataaa atgaatacat acataaggaa    2220
agataaaaag aaaagtttaa tgaaagaata cagtataaaa caaatctctt ggacctaaaa    2280
gtattttttgt tcaagccaaa tattgtgaat cacctctctg tgttgaggat acagaatatc    2340
taagcccagg aaactgagca gaaagttcat gtactaacta atcaacccga ggcaaggcaa    2400
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gcactgtggg gtggggggtt gtggctgctc tgctctgagt ggccaagata aagcaacaga    3060
aaaatgtcca aagctgtgca gcaaagacaa gccaccgaac agggatctgc tcatcagtgt    3120
ggggacctcc aagtcggcca ccctggaggc aagcccccam agagcccatg caaggtggca    3180
gcagcagaag aagggaattg tccctgtcct tggcacattc ctcaccgacc tggtgatgct    3240
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cagctgctca ggtggctgca aatcattaca gccttcatcc tggggaggaa ctggggggcct    3360
ggttctgggt cagagagcag cccagtgagg gtgagagcta cagcctgtcc tgccagctgg    3420
atccccagtc ccggtcaacc agtaatcaag gctgagcaga tcaggcttcc cggagctggt    3480
cttgggaagc cagccctggg gtgagttggc tcctgctgtg gtactgagac aatattgtca    3540
taaattcaat gcgcccttgt atcccttttt cttttttatc tgtctacatc tataatcact    3600
atgcatacta gtctttgtta gtgtttctat tcmacttaat agagatatgt tatacttaaa    3660
aaaaaaaaaa aaaa    3674
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<210> 699
<211> 2051
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(2051)
<223> n = A,T,C or G

<400> 699
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actttttttt ttgaagcaag tccctgttct tgttcgtcct gactagtccc atcagggccc    120
tggatcccaa gactcagcat ccaaggtccc ctccaggaat cctggcagct cagcatactt    180
tatcctgttt catctgagag caaaaatgta aaattggatg cacagaaaag tgactcaaag    240
tgcttaatga ctagaagaaa tctaggagca gcaagaagca caggacaaac aggccaggcg    300
gtgtcaggag cccaggtctc cagctggang aacgtcaac cctgcagtgg gagcaggggc    360
cctttgcaca tcctaggcac agatggtaat gtagacacca caggtaagct gggcttggta    420
cctacccctc cccggattca gaaagaaacc aaacaaggag ctttgtgtgg aatgaaacct    480
cctttcctcc cagaagcact gctgactgtt tggtggttgc catttgtggc agtgagccct    540
```

251

```
tgtttgttct gaggttgggc tggtttctcc tcttggccct gccctacaga tcataaagga        600
gaacagcaag acgtccccag caaacatcca cagatggcct tggaaataag tcaccttcct        660
caccctgcag gaatgccagt gaacatattg ctgacatctt ggagctcagt acctcatagt        720
gtaacggcgt cagtagatct gcctgtgctg ggacttcctg tactacccat tcctgagggg        780
cgatgcttct gcagggcctg tgacttggtg cacaacttca gacaccatca tcttgcagca        840
gcaccgcacc ctcactagcc agggtgttga tgacttcctc aaggccaagg ccacattcaa        900
ggcttcggac ttcattgatg cgcttgtgct gagcaaggtg gcttctccgg gatcttaatt        960
caggaggtag aatggagctt gagatcaagt gtctgatcaa gcctcagtgt atgggcgctg       1020
ttcatcctct ggtgctgaag cagccaagag acccaagtct gcctggctgc ctcttaggat       1080
atgacagcag agccagtggc ctctactaga tcctgtacaa cctcacaaaa cacccagaca       1140
tcgggagtgc tgccagcctg tgatgcaaga gtcctaatcc tgaagacatt gaatgacctg       1200
tcgttgtgct gttttttacca aaaaggatca tgaggatcag agaggaaaag tcacttgccc       1260
aaagtcacac agctgaacag tggtggagtt caactttgac cgtgggctgt ctggcccca       1320
aggtgtatgc ttgcttctct cccaagagac tccttcctta tcaggctcaa atgaatgaaa       1380
ggaggatgtt aaagacaacg ccattattga cgagatcact cccaagcgga ttggagattg       1440
tcccaatatt tagacctata gcaaggcctt gggagaaatg gtggtgcagc aggagagcag       1500
gaacctaacc attgccatcc taaggccctc cattgtgtgg agcaacgtgg caccagcttt       1560
tcctgggttg ggttgataat ctaaatggat gtagccgact cattattgcg gtatgtatag       1620
ggatgaagaa gtaactgtaa tgtagtggag gaatagtaag aaaattctta gtgctggctt       1680
agcttaattg atccaaaaac ataaatgcta ctttactatc aattgaagca tattatttca       1740
attattctgg ttataatatg gaggcaggat gaaattgttt ttattctttt agaatttttt       1800
tttatcagga aaacagaggt aaagtgctat caattactat ttaagagttc tattttgaaa       1860
agtgagaatt aaggattttt ctttctttt taaaaaaaac ttttttaaaa attaaaaata       1920
aaagaagcaa aagtcttagg aaaatgaagc aagtagccct gccactctat gtacagtaat       1980
aacaatatct gtcccagtta ttatgtacaa tattataaaa aatgtcgcag acagtaaaaa       2040
aaaaaaaaaa a                                                           2051
```

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<210> 700
<211> 2841
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(2841)
<223> n = A,T,C or G

<400> 700
gcagagcaca gcatagctgc tttaccaaat catggccaga ctgcttctgt aagcaggccc         60
ctgatcctgt tccacctcac tggacaggac ctcccaactg gggcctccag ctaccccac        120
cagcatccct tggccaatgg aaatttgaaa tgttcctggg acagagctcc tggagagagg        180
ggcaggccac cacctttgct gtttgggtga ctagccgttc tggcctgcag gctttggaga        240
gcccaagctg acaaggggta gaagaggtgc ctcagcacag cacagccacg ctacgaaaac        300
atggccagac tcttgtttaa gtcagtcccc gaacacattt ctagtcagtg ggtgaagtct        360
ttcaaccagg gtctctggct accttgactg ctgttctctg gccgacagag gtctcaggcc        420
tccctgagtc agagctcccg gggggaggac cagattgtca tctttgctgt ttgggtgacc        480
cagccatttc agccttaggg cttcagagtg tctgaggtag ccaggggctg aagtgaaccc        540
ccagcacagc acagctgctg tataaaaacg tggccagact ttttctttaa gcaagtccct        600
gttcttattc ctcctgacta ggtaagactt ctcaacttgc ctccagccac atcttattgg        660
tgtgttcaga ttggcaacag gtttgtacct cagtggtaca gagctcccag aggaagggt        720
aggctatcat cttccctgga aaatacgagt caattaggga cttgagggga cccccagcat        780
tccacagcag cccttcagaa aagtggccag actctgtact tgatgggcag atcctcctgg        840
cctgtgtctc tagccagccc accactgaca ctatcaagcc agtagcaact cagcagttcc        900
ttggacagag cttccaggag caaatgaaat cctttctgcc actgcctttg cagtgaactg        960
cccttgctat cctcagaaga tatatcacgg gagcaaagac cctaagtgcc atatcaacac       1020
ctccaataag ctgcagttga cccaaagaac aagccaatcc atctcccaca ggttccacac       1080
acactccact actcatcacc agacagggaa ccctggcttg gcccacagc acagaccctc       1140
catcctgggc cgattacact gagtgattgc taactcacat gtctctggga tggagcaccc       1200
```

252

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aggagacaag  caaagtggtg  gagcagcaag  tcaggtgatg  tggagcccag  agggcaggga      1260
gagctatctc  tctgggctcc  acttgccctt  gtgagacact  ttgtcccagc  actccttagt      1320
ctgcttgcct  ctcccagggc  cccagcctgg  ccacacctgc  ttacagggca  ctctcagatg      1380
cccataccat  agtttctgtg  ctagtggacc  gtaccatatc  agtggagagc  tgcagcaagg      1440
tggcccntac  ggccacgcac  cagcctgcac  attacctctc  catactgcag  cccttttatat     1500
ggaaacttcc  tacatcactt  tgctgtgtgt  gtttacacag  gtggattttg  ctttacttgc      1560
actgacagca  cacaggaggg  cagcacacac  cccaacccac  atcaactgcc  attaaagaaa      1620
agaaatttca  gcccataatt  tcatgtccag  caaaattagg  catcataagt  gaaggagaaa      1680
taagatcctt  ttcagacaag  caaatgctga  gggaattcaa  tatcaccaga  tctaccttac      1740
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aatgcagtga  agaacgcagt  gaattacgca  gtccagtgat  gctaaaaacc  aaccacatac      1860
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tactaacctt  aaatgaaaat  gggctaaatg  ctcccattga  aagacatggg  gcaagctgga      1980
taaagaacca  agacccactg  gagtatgctg  tcttcaagaa  acccatctca  catgcggtgg      2040
catacatagg  ctcaaaataa  aggaatggag  aaaaatattt  caagcaaatg  gaaaacagaa      2100
aaaagcaggt  gttgcactcc  tactttctga  caaaacagac  tatgcgaata  aagataaaaa      2160
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atgacgatgg  agagcaggca  tctcctttcc  tgagtttcag  cttgcttctg  acagggaagg      2460
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gtaagattac  ccaccagctg  cttttaattt  ctcccttagc  attagaacac  tcagtaatca      2640
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agaaataaaa  aaaaaaaaaa  a                                                   2841
```

<210> 701
<211> 3228
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(3228)
<223> n = A,T,C or G

<400> 701
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tccgccccat  tgacgcaaat  ggcggtaggc  gtgtacggtg  ggaggtctat  ataagcagag        60
ctctcnggct  aactagagaa  cccactgctt  actggcttat  cgaaattaat  acgactcact       120
ataggggagac  ccaagctggc  tagcgtttaa  acttaagctt  ggtaccgagc  tcggatccac       180
tagtccagtg  tggtggaatt  ccattgtgtt  gggcaggaaa  caagcaaagt  ggtggagcag       240
caagtcaggt  gatgtggagc  ccagaggtca  gggatggctg  tctctctagg  gtccacttgc       300
ccttgtgaga  cactttatcc  cagcacttta  ggaatactga  ggtcatacca  gccacatctt       360
atatgcaaga  ttgcccagca  gagatcaggt  ccgagagttc  cctttttaaa  aaaaggagac       420
ttgcttaata  aaagaagtct  agccacgttt  gtgtagagcg  gctgtgctgt  gctggggttt       480
cacttttgag  agagttctcc  tctgagacct  gatctctgga  ggctgggcaa  tcttgcactt       540
gagatggggc  tggtctgatc  tcagcactcc  ttagtctgct  cgcctctccc  atggccccag       600
cctggccaca  cctgcttacg  gggcactctt  agatgcccac  accataactt  ccatgctagt       660
ggactgtacc  atatcagtgg  agagctgcag  caaggtggcc  cctagagcca  cgcaccagcc       720
tgcacattgc  ctcttccatac  ggcagccctt  tatttggaaa  cttcctaaat  cactttgctg       780
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cacccccaa  cccacatcaa  ctgccattaa  agaaaagaaa  tttcagccca  gaatttcatg       900
tccagcaaaa  ttaagcatca  taagtgaagg  agaaataaga  tccttttcag  acaagcaagt       960
gctgagggaa  tttggtatca  ccagatctac  cttacgagag  ctcctgaagg  aagcactaaa      1020
tatggaaaga  aaagatcatc  acctgctact  acaaaaacac  actgaagtac  acagtccaat      1080
```

253

```
gatgctaaaa agcaagcaca tatgtaagtc tgcaaaataa ccagctgaca gcatgacgac   1140
aggataaaat ccacacatac cattactaac cttaaatgta aatgggctaa atgctcccat   1200
tgaaagacac ggggcaagct gggtaaagaa ccaagaccca ctggagtatg ccgtcttcaa   1260
gcaacccatc tcacgtgcag tgccatacat aggctcaaaa taaaggaatg gagaaaaata   1320
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atctcattat tgcttgatac caacctgggc tatttgtatt gcccaaacga ataggataat   1500
ttgctgaggt tgtggagctt ctcccttca cagagtccct gatctccgaa aatttggttg   1560
agatgtaagg ttgattttgc tgtacaactc ctttttttgaa gttttactca tttccaacaa   1620
ggaaggcaag ttttcctgct tccattgaca aaggagagca ggcacctcct ttcctgagtt   1680
tcagcttgct tctgacaggg aaggagcttt gagatttgaa tactggcctg ctgggttttg   1740
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gagtgagaaa gcttacccaa tgcctgtacc atcatcgtac cttaaaagaa ctccatttta   1860
agttcaggga ctccttggca gaagagaccg tagccttgta tcagatcata aaggagaaga   1920
gcaagaggtc cccggcaaac atccacagat ggccttggaa ataagtcacc ttgctcaccc   1980
tgcaggaatg ccagtgaact tattgctgac atcttggagc tcagtaccct catagtgtaa   2040
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gcttctgcag ggcctgtgac ttggtgcaca acttcagaca ccatcatctt gcagcagcac   2160
cgcaccctca ctagccaggg tgttgatgac ttcctcaagg ccaaggccac attcaaggct   2220
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aggtagaatg gagcttgaga tcaagtgtct gatcaagcct cagtgtatgg gcgctgttca   2340
tcntctggtg ctgaagcagc caagagaccc aagtctgcct ggctgcntct taggatatga   2400
cagcagagcc agtggcctct actagatcct gtacaacctc acaaaacacc cagacatcgg   2460
gagtgctgcc agcctgtgat gcaagagtcc taatcctgaa gacattgaat gacctgtcat   2520
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tcacacagct gaacagtggt ggagttcaac tttgaccgtg ggctgtctga ccccaaggtg   2640
tatgcttgct tctctcccaa gagacaactt tcttatcagg ctcaaatgaa tgaaaggagg   2700
atgttaaagg taggatctct gaagcctgtg ccagtggaac cgcagctcat ggctggcacc   2760
tgtgttctca ttcttacctc attaagagta aagtttattg agtttattga atttaagtat   2820
ctttagtgag atcatatatt attagtaaga actgggacca aacagatttt ctgactctaa   2880
aagagagatt ttcacagaaa cagatatata cctgtaagta tacagacacg catacacaca   2940
tttctttact gctcataaaa attagtcctt attagaatgt gggatgtata aatgtaagag   3000
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254

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256

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258

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259

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<210> 706
<211> 123
<212> PRT
<213> Homo sapiens

<400> 706
Met Gly Ser Leu Gly Leu Phe Leu Gln Cys Ala Ile Ser Leu Val Phe
                  5                  10                  15
Ser Leu Val Met Asp Arg Leu Val Gln Arg Phe Gly Thr Arg Ala Val
              20                  25                  30
Tyr Leu Ala Ser Val Ala Ala Phe Pro Val Ala Ala Gly Ala Thr Cys
          35                  40                  45
Leu Ser His Ser Val Ala Val Thr Ala Ser Ala Ala Leu Thr Gly
      50                  55                  60
Phe Thr Phe Ser Ala Leu Gln Ile Leu Pro Tyr Thr Leu Ala Ser Leu
65                  70                  75                  80
Tyr His Arg Glu Lys Gln Val Leu Ile Gly Gln Trp Val Glu Ser Gly
                  85                  90                  95
Trp Glu Gly Trp Ser Gly Phe Leu Gly Gly Gln Leu Ala Gln Asn Leu
              100                 105                 110
```

260

```
Val Ser Gly Lys Gln Leu Trp Arg Met Leu Leu
        115                 120
```

<210> 707
<211> 150
<212> PRT
<213> Homo sapiens

<400> 707
```
Met Val Gln Arg Leu Trp Val Ser Arg Leu Leu Arg His Arg Lys Ala
                5                   10                  15
Gln Leu Leu Leu Val Asn Leu Leu Thr Phe Gly Leu Glu Val Cys Leu
            20                  25                  30
Ala Ala Gly Ile Thr Tyr Val Pro Pro Leu Leu Leu Glu Val Gly Val
        35                  40                  45
Glu Glu Lys Phe Met Thr Met Val Leu Gly Glu Ser Leu His Pro Pro
    50                  55                  60
Ser Phe Leu Phe Gln Ile His Ala Thr Trp His Val Gly Gln Glu Tyr
65                  70                  75                  80
Leu Cys Pro Gly Ser Cys Leu Glu Gly Glu Val Val Cys Trp Glu Gly
                85                  90                  95
Ile Ala Gly Gln Glu Gly Asp Pro Gly Leu Arg Gly His Thr Lys Arg
            100                 105                 110
Lys Lys Arg Ile Pro Arg Thr Tyr Pro Ser His Leu Trp Ile Pro Gly
            115                 120                 125
Pro Ala Gln Ser Leu Ala His Arg Arg His Trp Arg Asn Ala Pro Asn
    130                 135                 140
Leu Trp Leu Ala Leu Leu
145                 150
```

<210> 708
<211> 371
<212> PRT
<213> Homo sapiens

<400> 708
```
Met Leu Phe Pro Ser Phe Ser Arg Ser Leu Val Pro Leu Pro Leu Ala
                5                   10                  15
Leu Tyr Leu Ser Gln Pro Leu Thr His Thr Thr Ser Leu Leu Ala Gly
            20                  25                  30
Ile Gly Pro Val Leu Gly Leu Val Cys Val Pro Leu Leu Gly Ser Ala
        35                  40                  45
Ser Asp His Trp Arg Gly Arg Tyr Gly Arg Arg Arg Pro Phe Ile Trp
    50                  55                  60
Ala Leu Ser Leu Gly Ile Leu Leu Ser Leu Phe Leu Ile Pro Arg Ala
65                  70                  75                  80
Gly Trp Leu Ala Gly Leu Leu Cys Pro Asp Pro Arg Pro Leu Glu Leu
                85                  90                  95
Ala Leu Leu Ile Leu Gly Val Gly Leu Leu Asp Phe Cys Gly Gln Val
            100                 105                 110
Cys Phe Thr Pro Leu Glu Ala Leu Leu Ser Asp Leu Phe Arg Asp Pro
            115                 120                 125
Asp His Cys Arg Gln Ala Tyr Ser Val Tyr Ala Phe Met Ile Ser Leu
    130                 135                 140
Gly Gly Cys Leu Gly Tyr Leu Leu Pro Ala Ile Asp Trp Asp Thr Ser
145                 150                 155                 160
Ala Leu Ala Pro Tyr Leu Gly Thr Gln Glu Glu Cys Leu Phe Gly Leu
            165                 170                 175
```

```
Leu Thr Leu Ile Phe Leu Thr Cys Val Ala Ala Thr Leu Leu Val Ala
            180                     185                 190
Glu Glu Ala Ala Leu Gly Pro Thr Glu Pro Ala Glu Gly Leu Ser Ala
        195                     200                 205
Pro Ser Leu Ser Pro His Cys Cys Pro Cys Arg Ala Arg Leu Ala Phe
    210                     215                 220
Arg Asn Leu Gly Ala Leu Leu Pro Arg Leu His Gln Leu Cys Cys Arg
225                     230                 235                 240
Met Pro Arg Thr Leu Arg Arg Leu Phe Val Ala Glu Leu Cys Ser Trp
            245                     250                 255
Met Ala Leu Met Thr Phe Thr Leu Phe Tyr Thr Asp Phe Val Gly Glu
            260                     265                 270
Gly Leu Tyr Gln Gly Val Pro Arg Ala Glu Pro Gly Thr Glu Ala Arg
        275                     280                 285
Arg His Tyr Asp Glu Gly Lys Ala Leu Ala Ala Ser Arg Gly Trp Cys
    290                     295                 300
Gly Ser Arg Pro Pro Glu Thr Thr Leu Gly Ala Val Ser Gly Leu Val
305                     310                 315                 320
Pro Leu His Pro Gly Pro Asp Phe Ser Val Arg Lys Val Gly Met Asp
            325                     330                 335
Pro Ile Cys Ile His Gly Phe Ser Trp Val Trp Asn Ile Ser Ala Cys
            340                     345                 350
Gly Phe Arg Lys Ala Ser Gly Cys Ser Arg Ser Leu Ile Arg Val Val
        355                     360                 365
Ala Pro Val
    370
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<210> 709
<211> 141
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(141)
<223> n=A,T,C or G

<400> 709

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tccacanata aantgactca ttcctctcct cgcatanccc actntcccct ngcgataccg 120
taacnaancc cttccccctt t                                          141
```

<210> 710
<211> 196
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(196)
<223> n=A,T,C or G

<400> 710

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cnatccttcn cntacaccca tgangtccat gtcgcacgtc cacctcccct caaaacttgg 60
gtccncatcc accgtcact ctcccntaa ncnataaccc cttttngcga atagaccca 120
ccttancaat nggttttcn tttttgtcc ctnggnccgn gcgattcaan aaattgaagg 180
cccanaaaaa ccccct                                                196
```

262

```
<210> 711
<211> 177
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(177)
<223> n=A,T,C or G

<400> 711
ntacntcnct ccnaatgaaa ttcgaanctc ggttacccgg gggnattccg attaggngcg   60
tantctcgga tgtgcagtca caagtctttt gctaatnctt ataattntcn ctaccctttc  120
ttcnacaata ctgctatcct anttnttctn tcncctctct cccannttac taaccac     177

<210> 712
<211> 185
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(185)
<223> n=A,T,C or G

<400> 712
aaacgnacca nngccaacga tangtgttgg ngttggttgc ggttgttcct cttatntgca   60
ctggttgtcc gtgtcgcacg ganggccacg tccctctgnc ntgagtanca catagcatcc  120
acgtttagtc gactntnccg ggcggccgct ctacccntnt atngattctt attaaaantc  180
ggatc                                                              185

<210> 713
<211> 172
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(172)
<223> n=A,T,C or G

<400> 713
nntggtcgcc tgngcgtnta ctctaaagga tntactatnc atatggantc naanacgact   60
cactacacgg cnctctncgg agccnnggtc agtgcctnct nggagacctt ctctggggca  120
ggangagcac tnggtatgtt cacgtatcnc ttcntaaana tacnnccctc cg          172

<210> 714
<211> 112
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(714)
<223> n=A,T,C or G

<400> 714
nttgcgtgcc tggacgtnta ctctgcanga tctactactc atgngaattc taantacgga   60
```

```
ctcactatnc ggcancgcag gcgcagcagg gaangggtca cctcccagtc tc          112

<210> 715
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(326)
<223> n=A,T,C or G

<400> 715
tactctanag gatctncgng tcatntggat tctatntcga ctcactctag ggctcnagcn 60
gtcngccggg caagttattc ggatcgtcgg gntccgagct tcgcaattaa ntgtgccatc 120
gttctncaac gttcctgact nggaancccc ngcngttcng atccncnggt acctagctcc 180
anntcccccg tnctccttct ggngtntcat naangaggac cnccctcgat cncccttcct 240
taatctgcnc acnctgaacg nccaatggac atngtgcgtt taatntanna ggcccgnttc 300
gngtgccctt cccgtnannt cagctc                                      326

<210> 716
<211> 122
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(122)
<223> n=A,T,C or G

<400> 716
nntgcgtcgc ctgngcgtnt actctagatg atctgantag tcatatggat tctaatacga 60
ctcannatag ggctctagcg nggatncnga ttcgtcntcc ngattcantg acnccggtan 120
ca                                                               122

<210> 717
<211> 203
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(203)
<223> n=A,T,C or G

<400> 717
cntgcatgcc tgcaggtcga ctctagagga tctactagtc atatggatcg agcggccgcc 60
cgggcaggtg tnaatgataa anatgcatca tactanccta cagaanggag agataatgtt 120
ngntggacca ngttggtttt cttgcgtgtg tgtggcagta gtaagttatt agtttttana 180
atcantaccg ccctccgcac cac                                         203

<210> 718
<211> 168
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
```

264

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<222> (1)...(168)
<223> n=A,T,C or G

<400> 718
ggcaggangatcncttgagc cccngaggtc gaggctacag tgagccanga gtgcactact 60
gtnncgccct ccgcatncac gngtggtccg atccccgggt accganctng anttcactgg 120
anttctttttaancgtnttg antggtacna ccctcgantc cctggctg                168

<210> 719
<211> 210
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(210)
<223> n=A,T,C or G

<400> 719
cancgtcgnc ataacacgta ttttntgatn aagattctna ctgacccatn aantctacnt 60
ctcaagctct tncanngtcc agtnaangga atgtgtatnn gtngggatnc cacanaaaaa 120
aganatntcg gncgcttcat tantcatcct tcttacccan ntctctngat ncncagtntg 180
ancntgaacg cacactacng gatntctcca                                   210

<210> 720
<211> 131
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(131)
<223> n=A,T,C or G

<400> 720
tccatcctaa tacgactcac tataggctg ccaacctgcc atccactact gaggaagacc 60
cgnanactta ggggctcact gcgagccacc ggccacaggt cgtatagggc aaagcacgng 120
gaagcacccc t                                                       131

<210> 721
<211> 121
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(121)
<223> n=A,T,C or G

<400> 721
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naggaaaaan ganccaacaa ctaaaaaaaa nncggncgtg ncagcttnga tgactngtcc 120
a                                                                  121

<210> 722
<211> 246
<212> DNA
<213> Homo sapiens
```

265

```
<220>
<221> misc_feature
<222> (1)...(246)
<223> n=A,T,C or G

<400> 722
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gnttcntcga tatgaanaac actaatccca tgtngtntgn gtctccgtga ttcatccctc 120
gcacnggtcc cctccnaac cnttgcatag gtgttatgtt gtantctccc cagtgcacaa 180
agattnacac tctctcantg tctganatat gcacgagttc attgtcctgt cnccgtnaac 240
atcaag                                                            246


<210> 723
<211> 160
<212> DNA
<213> Homo sapiens


<220>
<221> misc_feature
<222> (1)...(160)
<223> n=A,T,C or G


<400> 723
cctccggaaa atccaantag agtaantncn ctctaatccg gggnaattgg nggggtnnat 60
acgtcctcct cccccagnt aggattnana aaaggnctcc cagancaaaa nctccaaagt 120
gnatcnanta gccgtnccg anatncaacg cccctacgtc                        160


<210> 724
<211> 156
<212> DNA
<213> Homo sapiens


<220>
<221> misc_feature
<222> (1)...(156)
<223> n=A,T,C or G


<400> 724
tnanccnata tacaccaaat tctgattcta aantcccacc caagggaaaa aagttgagaa 60
gagcctttcc acttttctac taataaaaaa atgcaccagc ccctaccann agtgnggaaa 120
acctccttag gcccttgnnt ggaacaancg aaaatc                           156


<210> 725
<211> 347
<212> DNA
<213> Homo sapiens


<220>
<221> misc_feature
<222> (1)...(347)
<223> n=A,T,C or G


<400> 725
aganggttnt atncatgctg tactcgcgcg cctgcagtcg acactagtgg atccaaagaa 60
ttcggcacga gagacggtgc gcgatggacc gagggcccca gccggngagg cgccgccgcc 120
gagcccgcgg ncagacgccc catcagtagc gtccgcaccg ggnagccgcg gntctcgccc 180
gagccgtggg cgcgcccgag gggcgggctc gcctcccgcc gtccctcgca gctctgccgg 240
```

266

```
gcccgagccc gcgccgtcgc cgccgccgnc ttgccgctcg gnccgcgcgg nccggnaaac 300
gcggtcgagg tctggatgng gcanngcccg cncctntcgc tgagcct               347
```

```
<210> 726
<211> 162
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(162)
<223> n=A,T,C or G

<400> 726
ttgggtgggt tgggtggggg naaatttncc catttgggtg ggtttggggg ggnaaatact 60
tcccgccttt tnggtnccca aaganacnaa gggggagtcc cttnatagag gnagngcgat 120
ncntcncaac nacntngact ttgnccatgg ggagnaaggt gg               162
```

```
<210> 727
<211> 120
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(120)
<223> n=A,T,C or G

<400> 727
gtgtgggtgg ggaattccat tgtggttggg ggnaaatctc cgcttgtcca aagnacaggg 60
ggggtcnctt anagngnagg gggttcctcc ccaccacttg ncttgnccat tgngagnaag 120
```

```
<210> 728
<211> 130
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(130)
<223> n=A,T,C or G

<400> 728
gacccactgc agcgttnaac ttagcttgga ccgagctcgg atccctagtc cgtgtggtgg 60
aattccatgt gtcgagagag gggcaaatac nctccaanac ancnccctca tgctcnacac 120
atattcgcat                                                   130
```

```
<210> 729
<211> 182
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(182)
<223> n=A,T,C or G

<400> 729
```

267

```
cngactgctn gcgtttaaac ttaagcnagg taccgaacgg ggatnnacga ctantgatcg 60
gctggctgct tccagtcgat tanatttgtg aaaaagctga accncngccn gttaaggggg 120
annatgcaaa anatncatcc nnctgccccn taaactgntc tntccnaggg aaaaaangga 180
ag                                                                   182
```

```
<210> 730
<211> 678
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(678)
<223> n=A,T,C or G

<400> 730
cactcncact ccggacctag gcncttcacc actgctctct tcctcctcct cctcctcntc 60
ctcggggctg ggggaccttc cccagtgacc atctcacttt ggctgaancc cactcggggc 120
agcctgagtt tggggctctt ggccttctca ccctcctcgg cccctccctt ggcccgcacc 180
aggccaaacc ggggcagccg taccttgagc ttgtgtccgg cctctccctc cccctctgcc 240
acctggtact cggcatggtt gccccgggga tggcgagagc tccacgtcgg gcagtgagaa 300
gcagaaagta cgctcggccc ctgggggctg ctcctcagca ccctcgcccc ccaccctagc 360
tctggccccc agtgtgggca acttcagcct cagcccaccc tcgcctgtgg ccgcctcgcc 420
cgcctgtgcc tctcggctta gccccacgtc caactcaagc tggggcactg tcacggtggg 480
catcttaaag acaccctcac ccaccagcag ctcaccacct gcaacctggg ctccaggcaa 540
aaaaagggtc acctggggca nctgaaccct gtacctgctg tgccctctgc tgaanggaat 600
gttatctgaa cctgctgccc tggggggtact gccttcccaa aaccgggtca antccacctg 660
ttggaaggna aatncccc                                                  678
```

```
<210> 731
<211> 135
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(135)
<223> n=A,T,C or G

<400> 731
gagatccgac gtcacccccct tccggcggcc caagacgctg caactcccga ggcngcccaa 60
atatctttgg aagagcgctc ccagcccaac acaatggaat tccaccacac tggnntagtg 120
gatccgagct aagcc                                                     135
```

```
<210> 732
<211> 660
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(660)
<223> n=A,T,C or G

<400> 732
gcttggtacc gagctnggat ccctagtaac ggccgccagt gtgctggaat tcggctttct 60
tcaatcagnt nacgagctgc atggtctgct aacattgtca taattgctgg catagattac 120
tgaaaataaa gaaaaaaaat tgaagctgcc tatcaagttt tggtattatc aaaaacttcc 180
```

268

```
tacaagttat tttacttcaa ccatgttatt acaaatattt taatgaatac tttagagact 240
ttaattacaa aaaactgaga tagtaaaagc aagtaataaa agctgaaatt acttagctat 300
ttgataatta cataaattat tatggtccat tcaacttttc tagtgtttag tttatacacc 360
aggaagactt tcctattcta ctaacattta taaagtatgc taacctatta tttaaacgca 420
tccactatta ggattttatg gcctaaaacg tgatacagtt cagtatcttg atgtcaaaac 480
tttttaagca agtagggatt aagttcaagt gaatgtgatt ttctttcttc ccagtagggt 540
cttctgaata actcagnaaa gctcacttcc attatcttac tttataaaaa aatgctataa 600
gacagaatgg gccgacgtgg nggctccacc tgtatccacc tttggaggcg agnggcgaat 660
```

<210> 733
<211> 836
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(836)
<223> n=A,T,C or G

<400> 733
```
aattaatgac tttttttccg ccctgccaag ctagtttgtc taaatataat gtaaagaaat 60
tagctactca ttttctggtc cacgaaggtt cctaaaatgg gaagaagtgg agatctgacc 120
ttgttagttc taaatacact aaactgggag tgccatggat ggctttcagg atgtcctgaa 180
tcctctataa ttgtatacaa aatcgtgagt ttttaaaaac tgggttagag ctattggttc 240
ctcagagtct caggcatctt agacccccaa aaaggttaag gactactgac ttaaccaatt 300
aggtttgagt ggcattggct ttgaagaaaa gcagaggaaa gatatatttt ataattctgg 360
gcaacaaaaa agtggatgtg tgccagcatc ttagagtaga atcctcttaa aaggatagca 420
ctgcatatga actagtaggt tttaaccagt gcatatttag gcgaagtagc tcatttttct 480
gttagaattc tttttttattt gggaatgggc aagctttttac agcttttacc ttgccaatga 540
atacctggaa tttaaaaaat cttgttaggc .atattgccca taagtttttt tttcctagat 600
catatattca gtaaatatgt ttgtagcttt atttcaatcc cccaattcat tgagggttga 660
aacaatttga atggtttgag tgtagaagct aagttatttc tgtagaggct aagggcattt 720
ataccaanat atgttagact tgnggntcct gttaaccatg ctgtanacaa taggaattac 780
tgtatatcca cattttaatt ttaacatctt ctgctttgnt gntggtttga gangga      836
```

<210> 734
<211> 694
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(694)
<223> n=A,T,C or G

<400> 734
```
nagtnctatt tncactaaac tgngagtgcc ttggatggct ttcaggatgt cctgaatcct 60
ctataattgt atacaaaatc gtgagttttt aaaaactggg ttagagctat tggttcctca 120
gagtctcagg catcttagac ccccaaaaag gttaaggact actgacttaa ccaattaggt 180
ttgagtggca ttggctttga agaaaagcag aggaaagata tatttttataa ttctgggcaa 240
caaaaaagtg gatgtgtgcc agcatcttag agtagaatcc tcttaaaagg atagcactgc 300
atatgaacta gtaggtttta accagtgcat atttaggcga agtagctcat ttttctgtta 360
gaattctttt ttatttggga atgggcaagc ttttacagct tttaccttgc caatgaatac 420
ctggaattta aaaaatcttg ttaggcatat gcccataaa gttttttttc ctagatcata 480
tattcagtaa atatgtttgt agctttattt caatccccca attcattgag ggttgaaaca 540
atttgaatgg tttgagtgta gaagctaagt tatttctgta gaggctaagg gcatttatac 600
caagatatgt tagacttgtg gttcctgtta accattgctg tagacaatag gaattactgt 660
atatccacat tttaattttt aacatcattc tgtc                               694
```

269

<210> 735
<211> 126
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(126)
<223> n=A,T,C or G

<400> 735
ncnttgaaac nggttgacca gacttcaggc ctgtgcgctc aatcgtggag aatctcgtgc 60
cgaattcggc acgagtctct ctctctctct ctctctctct ctctctctct ntctctctct 120
ctctct   126

<210> 736
<211> 165
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(165)
<223> n=A,T,C or G

<400> 736
cagaagcctt taaaccggtt ngaccagact tcaggcctgt gcgctcaatc gtggagaatc 60
tcgtgccgaa ttcggcacga gtctctctct ctctctctct ctctctctct ctctctctct 120
ctctctctct ctctctctct ctctctctct ctctctctct ctctc   165

<210> 737
<211> 125
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(125)
<223> n=A,T,C or G

<400> 737
ggnagcccct ttaaccgttt gtccagactt caggcctgtg cgctcaatcg tggagaatct 60
cgtgccgaat tcggcacgag tctctctctc tctctctctc tctctctctc tctctntctc 120
tctct   125

<210> 738
<211> 137
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(137)
<223> n=A,T,C or G

<400> 738

270

```
ggagncnctt gancaggatg accgacttca ggcctgtgcg ctcaatcgtg gagaatctcg 60
tgccgaattc ggcacgagtc tctctctctc tctctctctc tctctctctc tctctctctc 120
tctctctctc tctctct                                                 137
```

```
<210> 739
<211> 970
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(970)
<223> n=A,T,C or G

<400> 739
aggcctattt aggtgacact atagaacaag tttgtacaaa aaagcaggct ggtaccggtc 60
cggaattcgc ggccgcgtcg acggcccttn gtgccactag ntctttcatt cttccccccc 120
atcaatcagt gaactttta gcctactcaa agctttgctc caatgcatag gatttatgat 180
tgtggggatt tccagataat ataaatattc aacatgaata ttttaaatta aggcatgaga 240
cattttcct aactgagcat agccatgaac ctctcacgtc tgttcctctg tgtcagtttg 300
tancactgaa tacagcagcc ctcctaaaag tccaggcagt gcacaggtct tgacatgatg 360
aagtgacgtg ttgctatggt gattttgcag ctggccaaat agtcactggt tgattttacc 420
cagcaggaga tttttgcaaa aatttcctgg gtgagagtga aatcaaactc ctattttgnt 480
tctcctctgc aagctgnagt taagatggat taatgagtac ttttagatta attaactctg 540
aagagaaaat gggagaaaag tgaggaaggt tgttggcaga agtcattgct ggaatccttc 600
tgaagggagt actgacttca cttgcaaaga cnagagacta naagacaatg aagttaaact 660
tggcctgtct ctcatatgat agatgctgag agtcaggntc agggaaattt aattctgtca 720
tacgcatatn ggattatgtg gtcatggatt tgttggcact aaccngcctn taatcagnat 780
aagaaaagtg ttttggtaga naaagaaaat tatggcccag aaaaacctgg aanacttgga 840
aaaaatgntn gggggccttg ggtggtggtc tnaaaanacc ccctggggat ntttaaacca 900
aaantgaaga agggaaaaat ntttccccnt nttttttttt tttgccccct tgggattggn 960
ttttntttcc                                                         970
```

```
<210> 740
<211> 739
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(739)
<223> n=A,T,C or G

<400> 740
gntgtcnaaa aagcaggctg gtaccggtcc ggaattcgcg ccgcgtcga cggcccttgg 60
tgccactagt tctttcattc ttcccncca tcaatcagtg aacttttttag cctactcaaa 120
gctttgctcc aatgcatagg atttatgatt gtggggattt ccagataata taaatattca 180
acatgaatat tttaaattaa ggcatgagac attttttccta actgagcata gccatgaacc 240
tctcacgtct gttcctctgt gncagtttgt agcactgaat acagcagccc tcctaaaagt 300
ccaggcagtg cacaggtctt gacatgatga agtgacgtgt tgctatggtg attttgcagc 360
tggccaaata gtcactggtt gattttaccc agcaggagat ttttgcaaaa atttcctggg 420
tgagagtgaa atcaaactcc tattttgttt ctcctctgca agctgnagtt aanatggatt 480
aatgagtact tttagattaa ttaactctga agagaaaatg ggagaaaagn gaggaaggtt 540
gttggcagaa gtcattgctg gaatccttct gaagggagta ctgacttcac ttgcaaagac 600
aagagactan aagacaatga agttaaactt ggcctgtctn tcatatgata gatgcttgag 660
agtacaggnt cagggaaatt ttaattctgn catacgcata ttggattatg tgggtcatgg 720
ctttgtttgg cncctaacc                                               739
```

271

```
<210> 741
<211> 1171
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(1171)
<223> n=A,T,C or G

<400> 741·
gccttgnggt gacactatag aacatgtttg tacaaaaaag caggctggta ccggtccgga 60
attcgcggcc gcgtcgacgg cccttnntgc cactagttct ttcattcttc ccccccatca 120
atcagtgaac tttttagcct actcaaagct ttgctccaat gcataggatt tatgattgtg 180
gggatttcca gataatataa atattcaaca tgaatatttt aaattaaggc atgagacatt 240
tttcctaact gagcatagcc atgaacctct cacgtctgtt cctctgtgtc agtttgtagc 300
actgaataca gcagccctcc taaaagtcca ggcagtgcac aggtcttgac atgatgaagt 360
gacgtgttgc tatggtgatt ttgcagctgg ccaaatagtc actggttgat tttacccagc 420
aggagatttt tgcaaaaatt tcctgggtga gagtgaaatc aaactcctat tttgtttctc 480
ctctgcaagc tgtagttaag aagggattaa tggagtactt tttaagaatt aaattaacct 540
cttgaaagaa gaaaaaatgg gggaagaaaa aaagtggaag ggaaaagggn ttggttttgg 600
gccnaaaaaa aagttccaan tttnggcntt ggggaaaaat tccccntttt ccttggnaaa 660
agggggggnaa ggttaancct tgggaacctt tttccnncct tttnggccca aaggggaac 720
ccangggaa agaacctta ggnaaaggaa acccatttgg gaanggngtt naaaaccntt 780
ngggcccccg ggccctcctc caanaaggga aaaaaaaagg cctggaaaan gtaccaggg 840
ttcangggna aaanttaaaa ttcttggcca atancnccat aattgggaat tatgggggg 900
ccatgggctt ttggtttggg cncttaaccc cgcnttttaa attcaaanna aaaaaaagng 960
gtttggaaaa nnaaanaaaa aaaattnaan ggncccnaaa aaaaaccctg gaaaccttt 1020
ggaaaaaaat tngnnggggg gccntttggt tgggggggtt tnaaaaaacc ccctnggggg 1080
tttttaagc ccaaaagggg gggaggggna aaanggtncc cttntttttt ttttnngccc 1140
cccttgggga atggnttant tcangggcc c 1171

<210> 742
<211> 739
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(739)
<223> n=A,T,C or G

<400> 742
gntgtcnaaa aagcaggctg gtaccggtcc ggaattcgcg gccgcgtcga cggcccttgg 60
tgccactagt tctttcattc ttccccncca tcaatcagtg aactttttag cctactcaaa 120
gctttgctcc aatgcatagg atttatgatt gtggggattt ccagataata taaatattca 180
acatgaatat tttaaattaa ggcatgagac attttttccta actgagcata gccatgaacc 240
tctcacgtct gttcctctgt gncagtttgt agcactgaat acagcagccc tcctaaaagt 300
ccaggcagtg cacaggtctt gacatgatga agtgacgtgt tgctatggtg attttgcagc 360
tggccaaata gtcactggtt gattttaccc agcaggagat ttttgcaaaa atttcctggg 420
tgagagtgaa atcaaactcc tattttgttt ctcctctgca agctgnagtt aanatggatt 480
aatgagtact tttagattaa ttaactctga agagaaatg ggagaaaagn gaggaaggtt 540
gttggcagaa gtcattgctg gaatccttct gaagggagta ctgacttcac ttgcaaagac 600
aagagactan aagacaatga agttaaactt ggcctgtctn tcatatgata gatgcttgag 660
agtacaggnt cagggaaatt ttaattctgn catacgcata ttggattatg tgggtcatgg 720
ctttgtttgg cncctaacc 739
```

272

<210> 743
<211> 610
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(610)
<223> n=A,T,C or G

<400> 743
ctgtccttat ttctttagca aaaatttccc aagagaagaa ttgctgggat aatgcacatt 60
taaattttg atagacattc ccaaatatta tacctgtttt tgagaccttt aattcctgtt 120
gtcaaattgc cctatatatg gagtaataaa cacgatttaa agaaatgagg actaaaaaaa 180
gattatatat aacccaacat aaaggcaacc tcttaggcgt tgacagaaac tgacaacttt 240
ttatctgtgg gtgcgatcca ttataagtaa cctgagcacc ttattttttc tttttaaact 300
ctaggtagga tacccgaggt ccacaaattt ttcataagaa atattttttc tctgccctat 360
gagattttaa aaaatattat actgcttcaa ttgcatcaaa agaaatggac cctaatatct 420
atgatgaagg atttggagtt agaagacctg agtttcaatt ttggcatggc tgtttgtcta 480
gctctgngat cttggacagg tcaattgact tggcttaatc ttctcatcca tttagnggag 540
acagcaccac tattcacagg actattgncn gaattaccag acaatagcat aggngaaaat 600
ataangcctt 610

<210> 744
<211> 127
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(127)
<223> n=A,T,C or G

<400> 744
ttnacctccc tggaccgggc ccccttccc cgggcggntc ccccgggctg caggaattct 60
gcacgaggga gagagagttn gagagagaga gagagagaga gagagagaga gagananaga 120
gagagag 127

<210> 745
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(458)
<223> n=A,T,C or G

<400> 745
gatatcccgg gattcgcggc cgcgtcgacg tggcctctag tttgtcctgg tccaaagcag 60
ggaagctggg ctacgtcctg cccaggtcag ccttaggtta agggctgcct gggggaggga 120
acttcctggg ccttcgggtc tctgtgcact ggggtggctc ctgtggccca gaatgccctg 180
gagaagggtc ctactggaag cgaaggtgca gggcagcagg gcctgaggcg caggagctgg 240
tggaggctcc cagcacaggt cgccgcccca gtcacatcac tgctgatggt gggggggactt 300
ggggagtttc ccccgagaat gggaggtctc acagtccccg tgctgcaatg ctgtcggtgc 360
actgngncng caatgtgctc atggncactt gctttttctc tgtggccccg gccgatttat 420
ccagcanngc acccctcttc tnctctccgg anaaagcc 458

273

```
<210> 746
<211> 893
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(893)
<223> n=A,T,C or G

<400> 746
aagcaggctg gtaccggtcc ggaattcgcg gccgcgtcga cgtggggagt tagctctctg 60
gaccccgtca tagagtaagt catcgataga gcatttgctt gatggggact tccagaaggc 120
canngaaagt cctgccgact tcctgggga agcccatccgc acgtggggtg agggtccca 180
natggaagca gctgtgtatg caggggaggg gcagaggctg ctgccaatgg gcatgtccct 240
tacctgaaag ggccacctct ccaggtgaca tgtcctgggg gagccggggc cgtctgctcc 300
ggccagaggc gctcagctca ggccacacca ggcagggcac ctcccaacct ggacaggtgg 360
ggaccaaggt ggccttggac aaaactctct gtgtttgcca agcacccaat cggacacaga 420
gagtcaacca caccccagtc acatggtgtc cacacngcag gggtcaagga ggcccggccc 480
ctccccctca gacgtccctg ggcctctggg agtcagcaag gacgaggacg gcattgccct 540
tcgagacagg aagggagtga cctcctcccg gcggcatcca ggctcngctt ctccggagag 600
gagaggggggc tacttgctgg ataaancggc cggggccaca gagaaaaagc aaggtgacca 660
tgagcacctt gcaaacacag tgcacccacc agcatttnag caccnggggac tgtgaagacc 720
tcccatttct tcggggggaa acncgcccaa ngttcccccc accntcacta gtgnattgtg 780
acctgggggggn cgggccgacc cctgtngctt gggnnagccc tccncccagg tttctnnggc 840
ngcccnttaa nggnccctng nttggccccct tggccncctt tncgcttttc cca        893
```

```
<210> 747
<211> 738
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(738)
<223> n=A,T,C or G

<400> 747
gatatcccgg gaattcgcgg ccgcgtcnac gaagcacaga cctgngccct gctctcatgg 60
ggcagactgc catttgtcat tnattactga aggaaaggga tcctcagttt gcttgtggac 120
atttcaaatt tgaggtgaga gttggataag taagaataaa gctgctcttc aaagagatga 180
atatagaaaa agaaacaaga tacagncttg gcagtaaggc tgggaggaag gggaaaaggt 240
aataaagaat gaaagagtga gaaatgtgag caggagctga acacagaaaa gttcagngac 300
agaagcanaa ggagggaaga agggaggagg gtcccttttca cagaggctca cgaggatgct 360
ttatgngtgc catgcagtcc atgttcagga tgtctgcttc ttanctctct acttttctaa 420
tanaaatttg gatacttact gatcctacat atgtaacagg gagagaaggt gaattcaaa 480
gcantaaatt gaaaaattgt tcacaatttc attttttaaa aaaagggagc taacagaaga 540
agaggttaat gtggtaatta taggatgnct cttgcgacac atgaatgnat ctggtatcat 600
ctgagtggga ggggagctgt cttcctgacc caaaaggatc ctttcgttan ccngnactta 660
ngtcccaaaa cctcaccacc ttggagaaat natttccttt tgggggtntc attaaancct 720
tttggncccc gcaaaagc                                                738
```

```
<210> 748
<211> 647
<212> DNA
<213> Homo sapiens

<220>
```

274

```
<221> misc_feature
<222> (1)...(647)
<223> n=A,T,C or G

<400> 748
ctntgtggcg gtggctgtct catttgggtg gactttttgg gtcgtaggaa cctggtatng 60
aggtcgagag taagacgggc tattagtagt cgcatcggag ttatttgtga aaacctggtt 120
agggcctctg tctccgctgc gctcgcctaa attggtatgg ctcgacttgg aaacacggtt 180
ctaacacgcg ttgttagcgc ccttgctagc atgtgaagga cactggccct accaagaaag 240
attcgagtcg ctccttccgg tatcgttcac ggaggcgata tttactcttc ttactacggt 300
tacttcgaga ttgtctgtga agtttaagac tactaaaaag agtattaagc ctatcgggaa 360
ttagctagat cgacacgcta aaaccaaggg caatcggcgg aaatatagag gcaccaataa 420
tagggcctac agaaggcccg agggttagac tcacgtttaa taccggccac gggagaaata 480
aaaagataaa gtatacatcg tttagcggtc ctcggaagcc ttcggcttta atgccaagga 540
gtcggaagca tcgtcggcga gtaataaact ccatcgcgcc gagactatct acgacgccct 600
ccttaanatc cgtaaattac tcccggaaag agtatttagg cggctct            647

<210> 749
<211> 642
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(642)
<223> n=A,T,C or G

<400> 749
ctntgtggcg gtggntgtct catttgggtg gactttttgg gtcgtaggaa cctggtatgc 60
aggtccgcgg agcgtgggct ctcgtcgtgg atgttggggg ttggtgtggt gccggttgtt 120
tttggttctg ttgagcgtag tgtgtttgaa ggttagcgtt cgtgtcttgc ttgtggtttg 180
gtgtttaggg cgggtgggga ggttgttgtg tagctgttgt atgtcatatt gttggtgttg 240
ctgccctgtg ctgtttgtcc ttggttattg tggttgttac cccgcctgtg tggaagtgtt 300
gtggcagggc gggaatttaa gtgggagagt tgtgggaccc gtggttgttg ttacgttgct 360
gcttttgtcg tgggcggtgg cggcgcgtct gataattaga attggatacg gagtgtataa 420
tacttctagt aaatggggac ctagtgcttg acttcccgga atagggatct atgcgaagtc 480
cttaggatag tctttgataa gtttaacgcc cacgaccca aaattataca cgattagacg 540
cataacgact cctccaggaa agataaagaa tctcacatat agaacgggac cccatacacg 600
tcggatagga aacaagagaa ctaattttng ttaaaaagac tt             642

<210> 750
<211> 639
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(639)
<223> n=A,T,C or G

<400> 750
tttgtggcgg tggtgtctca tttgggtgga tttttgggtc gtaggtaacc tggtatngag 60
gtatagatgc cgattggtcc cgacgagcgt cacgataaat tcggtagttt cgcccttttt 120
agaaggcgct agtactcgga acttcacttc atctcggtag tttactttgg cgtatatagc 180
cttctccctc gaagactagc cgtcacattc gttccctagg aatcgtttct gcccctaaga 240
atcgagagc gagatcccga aactagagga accttagaag agtcgtattt ccacaaggac 300
cccacagtca ttcgggaaa atccctagga ccatacggtt aggattcccc cggaacccgg 360
agcaaagctc atgatttccc acaccgcgag agcgcctata accctatccc atttcttcgg 420
```

275

```
gttatcgagg atattacgat caagccgaga gaaccgctag aaccgctttc ttcgctttct 480
cacggaacct ataagtagaa agagaaactc aggtcttaag ggggcgcttc ggctaacgaa 540
acttctactt acgaagagag tatctagaca ttaagtcata aaaatccact acgcacctcg 600
tgtacgatat catcgggagc ggttcataga cggtgtccg             639
```

<210> 751
<211> 637
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(637)
<223> n=A,T,C or G

```
<400> 751
cttttgtggc ggnggtgtct catttgggtg gattttttggg tcgtaggnaa cctggtatng 60
aggcagctct gagcccccccc ccccccccccc cccccncccc ccccccccta ggnggttggg 120
aanacggtgg atacctaaat cgagtgngtt cattaaaagt agttgattac nccctaaaat 180
aanaanaggg cttcgtcggg anaaatcggt aagganaagt ctttntggca tcataanaat 240
actggctcgg gtcctaanat ntttaaggng gtcnccgagg gtnttcatac cgataanaaa 300
cgttttccta tcggcaacgg gcttacctga gggnggactt ctcncggngc ggngattnan 360
acgaanacgt agaggattnc cgntacttnt tganatcacn cgtatcatac ttgtaagcat 420
aattntcctg aaaagtgtta taanaatacg cncgcatatt cgctttttcg tcctagggat 480
gcttaaatgg cgatactgct atagcgggtg agcgttggtt ctcgagnaan aaagcgtgtc 540
ctaatgcgtc taaggnttta aggncgttgg tttaaaaata nccttagaaa cctcgaggcg 600
gatactggtt tnttttttaac gaaacaaagc accccnn             637
```

<210> 752
<211> 644
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(644)
<223> n=A,T,C or G

```
<400> 752
tntgtggcgg tggtgctcat ttgggtggat ttttgggtcg taggaacctg gtatgaggtc 60
ttgcgagttg ttggtgtgtc ctgtcgttcg gtggttccct tttgagttga gtttgtcctt 120
tgaggttgtt agctgctgtt cgtttgtgtt cgtgtagtgc tttgggttga gagggttatg 180
gtggtggtta cggtgtattg tcgcccgtgg tcgcggggtt ggggtggtcg tcggttttgt 240
ggttcatagt agtcttctgc gttcggtggt gcgggtttgg gtgagtagtt tcgttcttgg 300
atgtcccatt gacccgccat aatctaagta agggttagta gaaacctctc cccgatagac 360
acaaccgtcg tccactaaag acctcgcctc tgattttttaa aaggacccga aaaacatccc 420
ttcaacggaa aaaacggaaa aaaagtcagc gaattcaaag aagccacggg agagaaaaaa 480
gaactaaagt tagtccgtca ttatatgtct cctcggagga ggaagcggcg gtggcggaaa 540
atgaggcggt aagaaagacg acctctatcg gcggcttang ccctaaaagg gcgatacctt 600
acgggatgat aaggacccta ggacgcctcc ttctcggatc gtcc             644
```

<210> 753
<211> 635
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

276

<222> (1)...(635)
<223> n=A,T,C or G

<400> 753
ctttgtggcg gtggtgctca tttgggtgga tttttgggtc gtaggaacct ggtatgaggg 60
aatcagctcg accccccccc cccccccct ccgaagcaga gcccaaccca aagtccaccg 120
actacccgag taaactctcg gagggtagaa taagaaggag taggtcctag ccaatagaag 180
tagttccgag ccgttaggac agcggacgga acattnaaga aagagcctat attagggagg 240
aagtaacgtt cctctttcgg agctctttaa ggggtagtcc cagaacaagg gaagaggacc 300
cgtcggctat tgcccgtcga tacgggctct cacggngagc ctaggttcga ggatagggcc 360
gctcgtaaaa ttatacggtt tccgagaaac gcttccgtag accgggtcct aaatcgtccg 420
gagtattngg agagggatcc ttcggaccct agggacagag agaggagaac ggaggttaca 480
ggaggagaac gtntcctcnc tagttttctt tangtcgaaa aatttcttac cgatagggtt 540
cctagggtcg gngaatttac ggttcgaaaa acggtagtnc ctaanggntg ntattngggg 600
tagtatcggg tcgtttacaa ntcgtccgtc ttntg   635

<210> 754
<211> 721
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(721)
<223> n=A,T,C or G

<400> 754
accggattng ttnctgagcg cgtgactgct aataaaaaag atggantgcc atcttttttt 60
ttnccttgct ttatatatcc agcagcaaaa caaaattgtt ctgcngggct ataaaatttg 120
gcttgtgagt cntgtacaca actcaggagt gtgacacagc taccagcttt cctcctaact 180
ctcaagggaa gaaaattcaa gttctgtcta ggctcactct gtaaagtggg aaacttgctg 240
gttttgtagg cttttttttcc ccttctttcc ctctctcagc ttctccctgc ttctcagaan 300
atggagttgt gatgcctgca acttaccaaa tttatctatg aatcagattc cagtgggaga 360
cccctaaagc agagggagaa taaggagttc tccccatgat ggaaaatatc caaagacaag 420
gtttcatgga gcaaagaatt ctggctagat ttggtttgta agtggatccc tccccactgc 480
gtgtacactt tatctgtctc tttgcttctt ccccaccctc tttcccagct ctctctctgt 540
ctctctcttg ntccctgac cctttttct tcccantgca tacttttttn tttccctttt 600
ttaatcttct atantcttaa ncctaccaan gggccctcnt gannaatttn tcaccctga 660
ataggggatt ctntangccc tgagaatttc nttatcanaa aaatattttt ttaaagcatt 720
a   721

<210> 755
<211> 721
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(721)
<223> n=A,T,C or G

<400> 755
accggattng ttnctgagcg cgtgactgct aataaaaaag atggantgcc atcttttttt 60
ttnccttgct ttatatatcc agcagcaaaa caaaattgtt ctgcngggct ataaaatttg 120
gcttgtgagt cntgtacaca actcaggagt gtgacacagc taccagcttt cctcctaact 180
ctcaagggaa gaaaattcaa gttctgtcta ggctcactct gtaaagtggg aaacttgctg 240
gttttgtagg cttttttttcc ccttctttcc ctctctcagc ttctccctgc ttctcagaan 300
atggagttgt gatgcctgca acttaccaaa tttatctatg aatcagattc cagtgggaga 360

```
cccctaaagc agagggagaa taaggagttc tccccatgat ggaaaatatc caaagacaag 420
gtttcatgga gcaaagaatt ctggctagat ttggtttgta agtggatccc tccccactgc 480
gtgtacactt tatctgtctc tttgcttctt ccccaccctc tttcccagct ctctctctgt 540
ctctctcttg ntcccctgac ccttttttct tcccantgca tacttttttn tttccctttt 600
ttaatcttct atantcttaa ncctaccaan gggccctcnt gannaatttn tcacccctga 660
ataggggatt ctntangccc tgagaatttc nttatcanaa aaatattttt ttaaagcatt 720
a                                                             721
```

<210> 756
<211> 873
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(873)
<223> n=A,T,C or G

<400> 756
```
ggaagaatac agtaagtttg caaattaaaa tttctctatt tttctgttat ttattcattt 60
ggaaactgtc agcctgtctc tttcactttg ggcaagtgaa agcaaagacg tccagtccta 120
tcagcaatta ggctgaaagt caacgccaag ctggcgggca agggctggtc tgagtagagg 180
ttccctaggc aggcaagaga gagactccca ctcgatactc ccagctcggc aactgcctga 240
atgccaatga gcactcatta taacccgccc tattttatag gatttaattt tacacttcag 300
gcttaatcag tctgaaagtt aaactgacag tgttaagtta cggaatcaat gacatttagg 360
ctttatgact ttgtagctga atatctatgg gctatatttc cattctaaca gtgatatcct 420
gttccagaat ctcattcttt ggtgatggca ctttctagtg gagcagtcat ggtaacagtc 480
cacacccatt accatgtggg tgctttacag catactgacg gaaggactga ggagccaccg 540
gagcaggagt tcctctcagg gaggacgctg acacttccac agctgcctan gtatgggcac 600
ctgatgccaa cgaanaaccc aaagcgctct cccttccaga tggaagctgc cccacactgg 660
gctgacagca tctggagctg ctctggctca aatcccggaa tcgcacanct cctancgggg 720
gcgtttanag atcctcnggg ccagctaccg accacttttg acaagggnct taggagcgat 780
aactagnctg gcgcgttaca cncggatgga acgtcttgga cttgagacct cttgggggan 840
atggcncccc caaataantt gggaaaantn ggg                         873
```

<210> 757
<211> 782
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(782)
<223> n=A,T,C or G

<400> 757
```
ggcccctcga gggatactct agagcggccg ccgactagtg agctcgtcga cgatatcccg 60
ggatttgaga ccaggagaca gctccagatg ctgtcagccc agtgctgggg gcaggcttcc 120
atctgtgaag tggagaggcg ctttgggctt cttcgttggc atcaggtgcc catacctagg 180
gcagctgtgg aagtgtcagc gtcctccctg agaggaactc ctgctccggt ggctcctcag 240
tccttccgtc agtatgctgt aaagcaccca catggtaatg ggtgnggact ggtaccatga 300
ctgntccctt aaaaggtggc cttcccnaag aaaggagaat tcttggacna gggatttcac 360
ttgnttagaa atgggaaaaa ttacccatta gaattttcgn ttccaaggcn tnaagnccta 420
aaaggccttt gattcccgaa ccttaaccct gggcagttaa cctttcaaac gggataaacc 480
ctganggggga aaatnaaatc cttaaaaaa ggggggtttt naaggagggc tctttggctt 540
tcaggcantt gccaacctgg gaaattcana ggggaagtnt ttttttttgc ctgcctaggg 600
aacctttact taaacnaacc cttgncccccc catttggggt tgactttcan cctaattgct 660
gaaaggaccg ggccgntttt gntttccttt gncccaaagg naaanaaacg ggtgccantt 720
```

```
cccangggat tanttcccga aaatttggnn aatttttntt tgnaactttt tgggttttttt 780
cc                                                                  782
```

```
<210> 758
<211> 647
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(647)
<223> n=A,T,C or G

<400> 758
ntttgtggcg gtggtgtctc atttgggtgg actttttggg tcgtaggaac ctggtatnga 60
gggaagagcg ccgtcggtcc gagtacagta tggagtagta tagtcttcgc gccttctcgg 120
gcggcggggc tattctctcc aaaggcagag gtccctagtc gacctcgctc ccctaggtta 180
ggaacagccg tcgaatattt taggttcgtc gaggctttct tccgagctct acgcctaagt 240
agctccgcga gcaaagtatc ggtcattttc ccctatccat cactcccta agtacgcctc 300
attattccgg aaggcaagag gccagcattc ctccttagag tagagggtag gtacctccgt 360
cgcgtgccgc gaaagggcag agcttcgtgt cttccctccg cagcagctta acggtctacg 420
taggcgttct cgatctttc acgggaatcg gggtccggga gggcggcgga aaacgtcgac 480
gtctcggtca ccgtcaccgc cccgaacaac tagcggcttt ccgctttcaa ctgaggaacc 540
ccgcacccct cattagcgct tacgaaatcg gggangtgat tgcgccaatt cgttagcctt 600
cgataattat tctctattag cggtcctatc tcgcgctttc gatttat                647
```

```
<210> 759
<211> 657
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(657)
<223> n=A,T,C or G

<400> 759
ctttgtggcg gtggtgtctc atttgggtgg actttttggg tcgtaggaac ctggtatnga 60
gggctctata gaaagcctct tgtctttaga tacgggcttt ctggtccttc gttctggaag 120
tgtagtagta ggtactgcgg gaaggcgaag agtcctttca aggacgattt acttaagttg 180
gcttattcta tagttccttc gggacataag gtcggtacga tctatactgc gtgggaagct 240
gataggttgg gacttaaggc gaataagaag gaggcggcgg aggtcgcgat taccgcagag 300
atattattta cggcggccgc gggtaccgcg ggtcatgcgg aaattttctg aggttcttgg 360
attcctaaga tcgctcccgt cgagtatact agcgacgaac gtaagagtgc cctcacaaga 420
accggtacaa actcaagaag aagttcccat taagcatcgt aagaaacggt aggacgagga 480
cggtaagaag taatcggaga aaggatccta gtngttacga agaagcatcg ttnagctact 540
ttgcgctacc gtttatattt agacgtgttc cgtccttctc cgtgtttana aaaaaggttt 600
attccgacgg gagacttagg cgaatggagg gttccgcggt tganaatcgg ancgggg    657
```

```
<210> 760
<211> 644
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(644)
<223> n=A,T,C or G
```

```
<400> 760
ctttgtggcg gtggtgtctc atttgggtgg acttttggg tcgtaggaac ctggtatgna 60
ggaaaagaag taagcctcga agcctatctc cgaccgtatt tatttcgcag aagacggaac 120
tacggacgtc gttaacccg agtagccccc gtaagaaagg actaaagcga atggaaagt 180
cgggaattcc ggcggagggg cggcgattac tgaaaggagt aagagtaaga ctattgcgat 240
acttgaggcg ttccctctta aaaggcaccc gaaacactct attaaaaaac acccgaagaa 300
gaacaactca tgccgatcgc cgtgtgcagc cgtcaatagt aaagagagcc atgaaccatg 360
ccatccttag accaattagg atgaagaaga ggaggaagat gaggaccaaa ccctacccac 420
tcggaaaacc ccgcacgagc ctccgaacaa aatccgggaa ttaaaacggc ggcccacttc 480
cgcactctcg tagcgcggac cgaatagaaa accggaaact acagctaaag ggtcctttcc 540
ggcctgttat ctacccaccc gcaatccgat cctcccccc cctcgtccaa aaaccctaac 600
ctctgcggca acattagagc agaaggagag ggcgatccct tgan                644
```

```
<210> 761
<211> 647
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(647)
<223> n=A,T,C or G
```

```
<400> 761
ctttgtggcg gtggtgtctc atttgggtgg acttttggg tcgtaggaac ctggtatnga 60
ggcgggtact ctctgggata atcggtataa gtgttgtaaa attgggggta agagaaagtt 120
tcattataag aagtggaagc acgagccggg gtgtttagtc gttaatatta agaccggttt 180
ttgttgtact tatatagctt gcgcgtgggg aggcaataag aaacattgcg tttcgaggcc 240
ggatgcgggg aaccctcttc ggggtctaga gcgccgcatc tgcaaaataa ggactactga 300
cgccgctcat aacgtactca acaatgagtc ggcctgcatt aagatttcgg cgaagaaccg 360
tactgcgtct actgatagta tattgcattg atagcggcat gagctttatc acgtgtcgtt 420
ttcgggttgt aagaagggag ttaagtcgat cttcgaggaa gaagagaccc caaataaaaa 480
atgactcaaa aaaacctaga agaaacacga cgaaaggaaa aagaacgtta aaactagtag 540
ctcttcggan gagtagcctt agtagggtaa gtcctccgtg cgtactgtcc taaggtttgg 600
atagcgcggt tgaatagacg gtcacgcgtc agaaggtaaa aanccgg           647
```

```
<210> 762
<211> 628
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(628)
<223> n=A,T,C or G
```

```
<400> 762
cattgtgttg gggtcactga gcccactttt ttccagattt tttgtaaaat tgtttcgcat 60
tgtgttccct ttattcgctt gtattaatat ttgcgtagtg gattaaacaa atacttggtg 120
ttgactgtca gtcttagagg actgactaga agtagttttc atttggggct caggaaatac 180
ctactttata tttctagcta attaggaaag tcatttttca gttaggttgg tgttttggtt 240
caggcactcg ctagctagat gacctaacat gctacttaat ttctgagtgt ttgtgtccat 300
ccctgtagga ttgttgcggg gttaaatgaa attgtgtata tttgtaaagc atttacctca 360
gtgcccagac tgtgacagag tagattatta ggcttgctct tatttctgtg attaaattta 420
gtgtcagatt agcaacctat agctacttct aaagctgctg ctgctttctt tgtttagggt 480
taggaagaaa catgctggac agtttgccaa atgagagtta catgatgtgg cttgtgggaa 540
cattctaact tggaacttgc ccatttccag gactttgngg ttcanagatt tttggggata 600
```

280

```
gatgtaaggg ttaaaaaaaa cngaaaac                                628
```

```
<210> 763
<211> 147
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(147)
<223> n=A,T,C or G

<400> 763
cattgtgttg gggcagagat aaataattcc tctgaaaagt gttttattgg aatttcaaat 60
gaaaagctaa ctggataact tacagcatgt ttctgccaat aatctcttan aacaggcctc 120
ttttttttat gcacaccacc ttcnggc                                147
```

```
<210> 764
<211> 146
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(146)
<223> n=A,T,C or G

<400> 764
cattgtgttg ggtatgtttt ttgaaggcag gtggacagga tttgctgatg ggtaaatggc 60
agagttaggg ggactgttag aacagagaaa ganatcatgg ggttgggttt gagtctgatg 120
nnnaactggt gccgnntgct cagtat                                146
```

```
<210> 765
<211> 129
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(129)
<223> n=A,T,C or G

<400> 765
tncncgattc gntnctagcg tntacactna tgtcttggta ccgagctcgg atccactagt 60
ccagtgtggg nggaattcca ttgtgttggg gcaggaggng ctttgngtac ngtgcggctg 120
nagaggcgg                                                   129
```

```
<210> 766
<211> 175
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(175)
<223> n=A,T,C or G

<400> 766
```

281

```
cattgtgttg ggcctagtcc gaatactttt agtaacttca gacagatctc ctcatctctt 60
tctggggctt ggnttttctc ctttgtanaa tgatgccttt ctgtggtttt gtcatttcta 120
acattctgtg ngtgatgagg tgtatattcg anganctcta tcnccanagt actct       175
```

<210> 767
<211> 602
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(602)
<223> n=A,T,C or G

<400> 767
```
nnntttaaaa nctgtnctcc ccgcggtggc ggccgctcta gaactagtgg atcctttcca 60
cctggtttgt tttcagtgtt taatcctatt agtatcagca ggatataggt caggatatca 120
ggtgcagaac ctgtggaatc agccaatttg gcttgctcat ttactttaat aaggtcccat 180
aatgagtgag agtacaaagt tcaagccctg ttgagggtct gcattaaact ctcagaagta 240
tttagagtgt gccaggagcc gcgaaggtct ggttcgggtg gtggcgggaa ctgtattaga 300
gtgctaggca cggcgcgaca aagtctgtcc aacccaaaac ggtgctgagg cgttgggtgt 360
gagctccagt actcagaaaa gcatctcagc aggtactcaa cagatcctca ggggcttggg 420
ggcccagcac tggcagtgag ggcatgaaag acataaaagg gcactacctg tgggtatttt 480
ctgttctcca aggaggaagt agcaaaaatt aggacgctgg aatatcctat gttgtagcaa 540
tcccagaaca actgatgctc aacaaatacc acacaaaaca aatttttttaa aatttaatct 600
ta                                                                 602
```

<210> 768
<211> 671
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(671)
<223> n=A,T,C or G

<400> 768
```
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gccttttcca tgcttgcttg atgcggcttg cagcactgaa gaacagtttc aattgctagc 240
caaccagaga gcatgatcaa accaaacaag ttccctgttt caggaaaaac aggttttagg 300
taactgaagg gttaccagtt actgattcca caatcttctc tgtaaaanat ttctgcctat 360
tatgcagact gggcggcttt aaanntggta aaactatnaa atacccatac aatattttaa 420
ngggggcccn ttatnaagct tttcaggcct tcccctttcc atagcattgg tgggatacaa 480
gaaacctttaa aacagcaacn agctatcnag gcccaaaagg aaagtaattn tgatttttta 540
nagattccgn aacgaaaaaa tggctgggtt caaatacnac cttcttttta aaatggnttc 600
cttattaaac nttttttttt tttaattttta ccccatggtc ntgatnttng ngcttccgcc 660
canaaaatng n                                                       671
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<210> 769
<211> 877
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

282

<400> 769
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ggtttgttct tcacttggct aacccctctt ttacttaagc acaccttgaa cattccctcc 180
ttccccattt ccccgcagng cccctaatgg acatacttct gaataacaca ggtggtattc 240
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cctttgacca tgacatcaac agtgctccaa attatggggt accgtattag cctatgtcta 360
tcttgatcag aatccttacc tcggtgtatt gaaattatct atttcgtgcc tgcctcttta 420
aagtcagggt ttgccttatc tattgtctaa caccatgcag taggtaacat gcagtaggaa 480
acatggcatt aaattatttg ggttcaaatc ccagttatgg tgtgtaaatg cctaccaggc 540
cgtgaggcac ctgctaagca ggttgcacgc atcatttgaa ttcacaccac ccttttgcaa 600
tagaacagat aggcaacaga ggctcatttg ggctaaagga tttgatggag gggaagtgcc 660
aggattccca ccaaggcctc anggcccagg tccanggacc atgtctgttg tgacaactgg 720
agtgcatttc atatcccctn ctctgngggg naaggtccct cncgnggaga acnnttaaaa 780
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cccanccact agtcccangt ctgtcatgaa ccancccc 877

<400> 770
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ccgatgagta ggtaacagta ttttactgat aggtaatcta aagaaggagg ctaaataaat 180
tgcccaattt cgaacagtga gaggaagaat taggattgaa acacatatag tggcttcaga 240
atctgtaacc ctcacgatgc cactactact tctttcagaa tacccttttgc ctatctattc 300
tgttcctatg tcatcaaatt atacttactt taaaaagtat ttgtctttat tattttaaa 360
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ttttgagggt ttctcccttg ccagtttttc tatgctgggt tattcaagtc ctaagaattg 480
tgtagctatt acagaaccgc tttagcaaat gtgttccatt aatcaaggtg atttataaca 540
aaatttcatc caagtttgga gtgctctgaa aacatagcca aaatgttcgc agggtctacc 600
cctctcgtgt gtcccttttt tttagctatt tcagaagcac actggtgcaa tattttacga 660
aatgagtttc ttcccttac ctctgcatcc tctaagaaaa aatcattgnt gtttttatgaa 720
natgaanatc ctgctatttc atatcttgat tggagctgct taattaaatg accatttta 780
aatttgtttt gattccnngc aaaaaaagtt tnttnttgga tgtagggggc tcnnaaagnc 840
caaaccccc caaaattttt nnttgggaac ccna 874

<400> 771

283

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gtgtggtgga attcgcggcc gcgtcgaccg cgagcggtcg cccttttttt tttttttttn 120
ngtttttttg aanaattcat tgggtattta ttattc                          156
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<210> 772
<211> 586
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(586)
<223> n=A,T,C or G

<400> 772
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tggtggaatt cgcggccgcg tcgatcacaa agtgctcaca agtccngnat ttattttatc 120
tccagatatg aaacttaccc ccagctatgg tcttctattt gttatttaat ttctaggcca 180
attttttcca cttgaatgtc agtattttaa ttcaaagtca ccttgtccaa ataccaagtc 240
atcaacttac cctcaaatta tatcctcatt cagaaaatct acatctatta atggtagcta 300
ttttatccct gcccctgct tttcttttt atatttaatt aatttgntca tccagcaaat 360
gcttattgag caggtattgt aggctaaaca attctanact ttaaggggac acagnttgca 420
aaacaaaatc ctgccttgna tggatactta tgnnatggng ggatacagac aatcaacata 480
atgangngca tcatatataa tggttagnan aatgataagg gnttttggga aaaaaatgca 540
cccanccaan anggattggg aagtggangg ganggtcang ggangg       586
```

<210> 773
<211> 2983
<212> DNA
<213> Homo sapiens

<400> 773
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catgggagtt ccaaacgagc agtcctgtgt tccggcgagg acaggtgttt cacctgcggc 180
tggtgctgaa ccagccccta caatcctacc accaactgaa actggaattc agcacagggc 240
cgaatcctag catcgccaaa cacaccctgg tggtgctcga cccgaggacg ccctcagacc 300
actacaactg gcaggcaacc cttcaaaatg agtctggcaa agaggtcaca gtggctgtca 360
ccagttcccc caatgccatc ctgggcaagt accaactaaa cgtgaaaact ggaaaccaca 420
tccttaagtc tgaagaaaac atcctatacc ttctcttcaa cccatggtgt aaagaggaca 480
tggttttcat gcctgatgag gacgagcgca aagagtacat cctcaatgac acgggctgcc 540
attacgtggg ggctgccaga agtatcaaat gcaaaccctg gaactttggt cagtttgaga 600
aaaatgtcct ggactgctgc atttccctgc tgactgagag ctccctcaag cccacagata 660
ggagggaccc cgtgctggtg tgcagggcca tgtgtgctat gatgagcttt gagaaaggcc 720
agggcgtgct cattgggaat tggactgggg actatgaagg tggcacagcc ccatacaagt 780
ggacaggcag tgccccgatc ctgcagcagt actacaacac gaagcaggct gtgtgctttg 840
gccagtgctg ggtgtttgct gggatcctga ctacagtgct gagagcgttg ggcatcccag 900
cacgcagtgt gacaggcttc gattcagctc acgacacaga aaggaacctc acggtggaca 960
cctatgtgaa tgagaatggc aagaaaatca ccagtatgac ccacgactct gtctggaatt 1020
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tctcagaagt gaatggtgac aggctcatct ggttggtgaa gatggtgaat gggcaggagg 1260
agttacacgt aatttcaatg gagaccaacaa gcatcgggaa aaacatcagc accaaggcag 1320
tgggccaaga caggcggaga gatatcacct atgagtacaa gtatccagaa ggctcctctg 1380
aggagaggca ggtcatggat catgccttcc tccttctcag ttctgagagg gagcacagac 1440
gacctgtaaa agagaacttt cttcacatgt cggtacaatc agatgatgtg ctgctgggaa 1500
```

```
actctgttaa tttcaccgtg attcttaaaa ggaagaccgc tgccctacag aatgtcaaca 1560
tcttgggctc ctttgaacta cagttgtaca ctggcaagaa gatggcaaaa ctgtgtgacc 1620
tcaataagac ctcgcagatc caaggtcaag tatcagaagt gactctgacc ttggactcca 1680
agacctacat caacagcctg gctatattag atgatgagcc agttatcaga ggtttcatca 1740
ttgcggaaat tgtggagtct aaggaaatca tggcctctga agtattcacg tctttccagt 1800
accctgagtt ctctatagag ttgcctaaca caggcagaat tggccagcta cttgtctgca 1860
attgtatctt caagaatacc ctggccatcc ctttgactga cgtcaagttc tctttggaaa 1920
gcctgggcat ctcctcacta cagacctctg accatgggac ggtgcagcct ggtgagacca 1980
tccaatccca aataaaatgc accccaataa aaactggacc caagaaattt atcgtcaagt 2040
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cttctgttaa ctgaagcctg ctccttcttg ttctgccctc cagagatttg ctcaaatgat 2940
caataagctt taaattaaac tctacttcaa gaaaaaaaa ccg             2983
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<210> 774
<211> 3064
<212> DNA
<213> Homo sapiens

<400> 774
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ggcattgcag gagagaatct gaagggatga tggatgcatc aaaagagctg caagttctcc 180
acattgactt cttgaatcag gacaacgccg tttctcacca cacatgggag ttccaaacga 240
gcagtcctgt gttccggcga ggacaggtgt ttcacctgcg gctggtgctg aaccagcccc 300
tacaatccta ccaccaactg aaactggaat tcagcacagg gccgaatcct agcatcgcca 360
aacacaccct ggtggtgctc gacccgagga cgccctcaga ccactacaac tggcaggcaa 420
cccttcaaaa tgagtctggc aaagaggtca cagtggctgt caccagttcc cccaatgcca 480
tcctgggcaa gtaccaacta aacgtgaaaa ctggaaacca catccttaag tctgaagaaa 540
acatcctata ccttctcttc aacccatggt gtaaagagga catggttttc atgcctgatg 600
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agtacaagta tccagaaggc tcctctgagg agaggcaggt catggatcat gccttcctcc 1500
ttctcagttc tgagagggag cacagacagc ctgtaaaaga gaactttctt cacatgtcgg 1560
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285

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tacaatcaga tgatgtgctg ctgggaaact ctgttaattt caccgtgatt cttaaaagga 1620
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gcaagaagat ggcaaaactg tgtgacctca ataagacctc gcagatccaa ggtcaagtat 1740
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attc                                                                  3064
```

<210> 775
<211> 684
<212> PRT
<213> Homo sapiens

<400> 775

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                  5                  10                  15
Asn Gln Asp Asn Ala Val Ser His His Thr Trp Glu Phe Gln Thr Ser
              20                  25                  30
Ser Pro Val Phe Arg Arg Gly Gln Val Phe His Leu Arg Leu Val Leu
          35                  40                  45
Asn Gln Pro Leu Gln Ser Tyr His Gln Leu Lys Leu Glu Phe Ser Thr
      50                  55                  60
Gly Pro Asn Pro Ser Ile Ala Lys His Thr Leu Val Val Leu Asp Pro
65                  70                  75                  80
Arg Thr Pro Ser Asp His Tyr Asn Trp Gln Ala Thr Leu Gln Asn Glu
              85                  90                  95
Ser Gly Lys Glu Val Thr Val Ala Val Thr Ser Ser Pro Asn Ala Ile
          100                 105                 110
Leu Gly Lys Tyr Gln Leu Asn Val Lys Thr Gly Asn His Ile Leu Lys
      115                 120                 125
Ser Glu Glu Asn Ile Leu Tyr Leu Leu Phe Asn Pro Trp Cys Lys Glu
  130                 135                 140
Asp Met Val Phe Met Pro Asp Glu Asp Glu Arg Lys Glu Tyr Ile Leu
145                 150                 155                 160
Asn Asp Thr Gly Cys His Tyr Val Gly Ala Ala Arg Ser Ile Lys Cys
              165                 170                 175
Lys Pro Trp Asn Phe Gly Gln Phe Glu Lys Asn Val Leu Asp Cys Cys
          180                 185                 190
Ile Ser Leu Leu Thr Glu Ser Ser Leu Lys Pro Thr Asp Arg Arg Asp
```

286

```
         195                    200                    205
Pro Val Leu Val Cys Arg Ala Met Cys Ala Met Met Ser Phe Glu Lys
    210                    215                    220
Gly Gln Gly Val Leu Ile Gly Asn Trp Thr Gly Asp Tyr Glu Gly Gly
225                    230                    235                    240
Thr Ala Pro Tyr Lys Trp Thr Gly Ser Ala Pro Ile Leu Gln Gln Tyr
             245                    250                    255
Tyr Asn Thr Lys Gln Ala Val Cys Phe Gly Gln Cys Trp Val Phe Ala
             260                    265                    270
Gly Ile Leu Thr Thr Val Leu Arg Ala Leu Gly Ile Pro Ala Arg Ser
             275                    280                    285
Val Thr Gly Phe Asp Ser Ala His Asp Thr Glu Arg Asn Leu Thr Val
    290                    295                    300
Asp Thr Tyr Val Asn Glu Asn Gly Lys Lys Ile Thr Ser Met Thr His
305                    310                    315                    320
Asp Ser Val Trp Asn Phe His Val Trp Thr Asp Ala Trp Met Lys Arg
             325                    330                    335
Pro Asp Leu Pro Lys Gly Tyr Asp Gly Trp Gln Ala Val Asp Ala Thr
             340                    345                    350
Pro Gln Glu Arg Ser Gln Gly Val Phe Cys Cys Gly Pro Ser Pro Leu
             355                    360                    365
Thr Ala Ile Arg Lys Gly Asp Ile Phe Ile Val Tyr Asp Thr Arg Phe
    370                    375                    380
Val Phe Ser Glu Val Asn Gly Asp Arg Leu Ile Trp Leu Val Lys Met
385                    390                    395                    400
Val Asn Gly Gln Glu Glu Leu His Val Ile Ser Met Glu Thr Thr Ser
             405                    410                    415
Ile Gly Lys Asn Ile Ser Thr Lys Ala Val Gly Gln Asp Arg Arg Arg
             420                    425                    430
Asp Ile Thr Tyr Glu Tyr Lys Tyr Pro Glu Gly Ser Ser Glu Glu Arg
             435                    440                    445
Gln Val Met Asp His Ala Phe Leu Leu Leu Ser Ser Glu Arg Glu His
    450                    455                    460
Arg Arg Pro Val Lys Glu Asn Phe Leu His Met Ser Val Gln Ser Asp
465                    470                    475                    480
Asp Val Leu Leu Gly Asn Ser Val Asn Phe Thr Val Ile Leu Lys Arg
             485                    490                    495
Lys Thr Ala Ala Leu Gln Asn Val Asn Ile Leu Gly Ser Phe Glu Leu
             500                    505                    510
Gln Leu Tyr Thr Gly Lys Lys Met Ala Lys Leu Cys Asp Leu Asn Lys
             515                    520                    525
Thr Ser Gln Ile Gln Gly Gln Val Ser Glu Val Thr Leu Thr Leu Asp
    530                    535                    540
Ser Lys Thr Tyr Ile Asn Ser Leu Ala Ile Leu Asp Asp Glu Pro Val
545                    550                    555                    560
Ile Arg Gly Phe Ile Ile Ala Glu Ile Val Glu Ser Lys Glu Ile Met
             565                    570                    575
Ala Ser Glu Val Phe Thr Ser Phe Gln Tyr Pro Glu Phe Ser Ile Glu
             580                    585                    590
Leu Pro Asn Thr Gly Arg Ile Gly Gln Leu Leu Val Cys Asn Cys Ile
             595                    600                    605
Phe Lys Asn Thr Leu Ala Ile Pro Leu Thr Asp Val Lys Phe Ser Leu
    610                    615                    620
Glu Ser Leu Gly Ile Ser Ser Leu Gln Thr Ser Asp His Gly Thr Val
625                    630                    635                    640
Gln Pro Gly Glu Thr Ile Gln Ser Gln Ile Lys Cys Thr Pro Ile Lys
             645                    650                    655
Thr Gly Pro Lys Lys Phe Ile Val Lys Leu Ser Ser Lys Gln Val Lys
```

287

```
                   660                      665                    670
Glu Ile Asn Ala Gln Lys Ile Val Leu Ile Thr Lys
         675                      680


<210> 776
<211> 679
<212> PRT
<213> Homo sapiens

<400> 776
Met Met Asp Ala Ser Lys Glu Leu Gln Val Leu His Ile Asp Phe Leu
                  5                  10                      15
Asn Gln Asp Asn Ala Val Ser His His Thr Trp Glu Phe Gln Thr Ser
              20                  25                  30
Ser Pro Val Phe Arg Arg Gly Gln Val Phe His Leu Arg Leu Val Leu
          35                  40                  45
Asn Gln Pro Leu Gln Ser Tyr His Gln Leu Lys Leu Glu Phe Ser Thr
      50                  55                  60
Gly Pro Asn Pro Ser Ile Ala Lys His Thr Leu Val Val Leu Asp Pro
65                  70                  75                  80
Arg Thr Pro Ser Asp His Tyr Asn Trp Gln Ala Thr Leu Gln Asn Glu
              85                  90                  95
Ser Gly Lys Glu Val Thr Val Ala Val Thr Ser Ser Pro Asn Ala Ile
          100                 105                 110
Leu Gly Lys Tyr Gln Leu Asn Val Lys Thr Gly Asn His Ile Leu Lys
      115                 120                 125
Ser Glu Glu Asn Ile Leu Tyr Leu Leu Phe Asn Pro Trp Cys Lys Glu
      130                 135                 140
Asp Met Val Phe Met Pro Asp Glu Asp Glu Arg Lys Glu Tyr Ile Leu
145                 150                 155                 160
Asn Asp Thr Gly Cys His Tyr Val Gly Ala Ala Arg Ser Ile Lys Cys
              165                 170                 175
Lys Pro Trp Asn Phe Gly Gln Phe Glu Lys Asn Val Leu Asp Cys Cys
          180                 185                 190
Ile Ser Leu Leu Thr Glu Ser Ser Leu Lys Pro Thr Asp Arg Arg Asp
      195                 200                 205
Pro Val Leu Val Cys Arg Ala Met Cys Ala Met Met Ser Phe Glu Lys
      210                 215                 220
Gly Gln Gly Val Leu Ile Gly Asn Trp Thr Gly Asp Tyr Glu Gly Gly
225                 230                 235                 240
Thr Ala Pro Tyr Lys Trp Thr Gly Ser Ala Pro Ile Leu Gln Gln Tyr
              245                 250                 255
Tyr Asn Thr Lys Gln Ala Val Cys Phe Gly Gln Cys Trp Val Phe Ala
          260                 265                 270
Gly Ile Leu Thr Thr Val Leu Arg Ala Leu Gly Ile Pro Ala Arg Ser
      275                 280                 285
Val Thr Gly Phe Asp Ser Ala His Asp Thr Glu Arg Asn Leu Thr Val
      290                 295                 300
Asp Thr Tyr Val Asn Glu Asn Gly Glu Lys Ile Thr Ser Met Thr His
305                 310                 315                 320
Asp Ser Val Trp Asn Phe His Val Trp Thr Asp Ala Trp Met Lys Arg
              325                 330                 335
Pro Tyr Asp Gly Trp Gln Ala Val Asp Ala Thr Pro Gln Glu Arg Ser
          340                 345                 350
Gln Gly Val Phe Cys Cys Gly Pro Ser Pro Leu Thr Ala Ile Arg Lys
      355                 360                 365
Gly Asp Ile Phe Ile Val Tyr Asp Thr Arg Phe Val Phe Ser Glu Val
      370                 375                 380
```

288

```
Asn Gly Asp Arg Leu Ile Trp Leu Val Lys Met Val Asn Gly Gln Glu
385                 390                 395                 400
Glu Leu His Val Ile Ser Met Glu Thr Thr Ser Ile Gly Lys Asn Ile
            405                 410                 415
Ser Thr Lys Ala Val Gly Gln Asp Arg Arg Arg Asp Ile Thr Tyr Glu
            420                 425                 430
Tyr Lys Tyr Pro Glu Gly Ser Ser Glu Glu Arg Gln Val Met Asp His
        435                 440                 445
Ala Phe Leu Leu Leu Ser Ser Glu Arg Glu His Arg Gln Pro Val Lys
    450                 455                 460
Glu Asn Phe Leu His Met Ser Val Gln Ser Asp Asp Val Leu Leu Gly
465                 470                 475                 480
Asn Ser Val Asn Phe Thr Val Ile Leu Lys Arg Lys Thr Ala Ala Leu
                485                 490                 495
Gln Asn Val Asn Ile Leu Gly Ser Phe Glu Leu Gln Leu Tyr Thr Gly
        500                 505                 510
Lys Lys Met Ala Lys Leu Cys Asp Leu Asn Lys Thr Ser Gln Ile Gln
        515                 520                 525
Gly Gln Val Ser Glu Val Thr Leu Thr Leu Asp Ser Lys Thr Tyr Ile
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Ile Ala Glu Ile Val Glu Ser Lys Glu Ile Met Ala Ser Glu Val Phe
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Thr Ser Asn Gln Tyr Pro Glu Phe Ser Ile Glu Leu Pro Asn Thr Gly
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Ala Ile Pro Leu Thr Asp Val Lys Phe Ser Leu Glu Ser Leu Gly Ile
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Ser Ser Leu Gln Thr Ser Asp His Gly Thr Val Gln Pro Gly Glu Thr
625                 630                 635                 640
Ile Gln Ser Gln Ile Lys Cys Thr Pro Ile Lys Thr Gly Pro Lys Lys
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Phe Ile Val Lys Leu Ser Ser Lys Gln Val Lys Glu Ile Asn Ala Gln
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289

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290

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<212> PRT
<213> Homo sapiens

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Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
        35                  40                  45
Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
    50                  55                  60
Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
65                  70                  75                  80
Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
                85                  90                  95
Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
            100                 105                 110
Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
        115                 120                 125
His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys
    130                 135                 140
Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
145                 150                 155                 160
Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
                165                 170                 175
Tyr Gly Leu Thr Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
            180                 185                 190
Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
            195                 200                 205
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291

Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
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Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
225   230   235   240
Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
                245   250   255
Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
                260   265   270
Glu Lys His Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
        275   280   285
Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Lys Glu Thr Leu
    290   295   300
Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
305   310   315   320
Glu Gly Ser Gly Arg Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
                325   330   335
Glu Asp Ala Pro Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
                340   345   350
Leu Pro Arg Thr Val Ser Arg Leu Ser Glu Glu Glu Thr Glu Ser Trp
        355   360   365
Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
    370   375   380
Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
385   390   395   400
Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
                405   410   415
Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
                420   425   430
Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
        435   440   445
Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
    450   455   460
Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
465   470   475   480
His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
                485   490   495
Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
                500   505   510
Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
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Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
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Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
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Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
                565   570   575
Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
                580   585   590
Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
        595   600   605
Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
    610   615   620
Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
625   630   635   640
Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
                645   650   655
Gln His Phe Thr Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
        660   665   670

292

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Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu
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Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg
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Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala
705             710             715             720
Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr
            725             730             735
Ile Ala Phe Leu Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His
            740             745             750
Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val
            755             760             765
Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr
        770             775             780
Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe
785             790             795             800
Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu
            805             810             815
Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu
            820             825             830
Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile
        835             840             845
Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Phe Leu Phe Leu
        850             855             860
Phe Ala Val Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu
865             870             875             880
Arg Gln Asn Glu Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr
            885             890             895
Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly
            900             905             910
Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys
        915             920             925
Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
        930             935             940
Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
945             950             955             960
Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
            965             970             975
Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
            980             985             990
Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
        995             1000            1005
Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
    1010            1015            1020
Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
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Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
            1045            1050            1055
Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
        1060            1065            1070
Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
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Glu Ile Ala Asn Lys Ile Lys
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<211> 3639
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293

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<212> DNA
<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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         35                  40                  45
Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
     50                  55                  60
Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
 65                  70                  75                  80
Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
                 85                  90                  95
Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
            100                 105                 110
Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
        115                 120                 125
His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys
    130                 135                 140
Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
145                 150                 155                 160
Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
                165                 170                 175
Tyr Gly Leu Met Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
            180                 185                 190
Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
        195                 200                 205
Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
    210                 215                 220
Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
225                 230                 235                 240
Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
                245                 250                 255
Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
            260                 265                 270
Glu Lys Tyr Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
        275                 280                 285
Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu
    290                 295                 300
Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
```

295

```
305                    310                    315                    320
Glu Gly Ser Gly Gln Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
                325                    330                    335
Glu Asp Ala Leu Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
            340                    345                    350
Leu Pro Arg Thr Val Ser Arg Leu Pro Glu Glu Glu Thr Glu Ser Trp
        355                    360                    365
Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
    370                    375                    380
Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
385                    390                    395                    400
Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
                405                    410                    415
Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
            420                    425                    430
Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
        435                    440                    445
Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
    450                    455                    460
Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
465                    470                    475                    480
His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
            485                    490                    495
Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
        500                    505                    510
Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
    515                    520                    525
Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
    530                    535                    540
Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
545                    550                    555                    560
Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
                565                    570                    575
Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
            580                    585                    590
Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
        595                    600                    605
Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
    610                    615                    620
Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
625                    630                    635                    640
Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
                645                    650                    655
Gln His Phe Ile Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
            660                    665                    670
Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu
        675                    680                    685
Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg
    690                    695                    700
Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala
705                    710                    715                    720
Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr
                725                    730                    735
Ile Ala Phe Leu Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His
            740                    745                    750
Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val
        755                    760                    765
Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr
```

296

```
      770    \                    775                     780
Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe
785                     790                     795                     800
Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu
                805                     810                     815
Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu
                820                     825                     830
Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile
                835                     840                     845
Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Leu Phe Leu
        850                     855                     860
Phe Ala Xaa Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu
865                     870                     875                     880
Arg Gln Asn Glu Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr
                885                     890                     895
Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly
                900                     905                     910
Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys
                915                     920                     925
Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
        930                     935                     940
Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
945                     950                     955                     960
Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
                965                     970                     975
Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
        980                     985                     990
Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
        995                     1000                    1005
Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
    1010                    1015                    1020
Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
1025                    1030                    1035                    1040
Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
                1045                    1050                    1055
Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
                1060                    1065                    1070
Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
        1075                    1080                    1085
Glu Ile Ala Asn Lys Ile Lys
    1090                    1095
```

```
<210> 781
<211> 15
<212> PRT
<213> Homo sapiens

<400> 781
Arg Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser
                5                   10                      15

<210> 782
<211> 45
<212> DNA
<213> Homo sapiens

<400> 782
```

297

```
agaatgccta ccgtgctgca gtgcgtgaac gtgtcggtgg tgtct              45


<210> 783
<211> 45
<212> DNA
<213> Homo sapiens

<400> 783
gagccaggga gccagatggt ggaggccagc ctctccgtac ggcac             45


<210> 784
<211> 45
<212> DNA
<213> Homo sapiens

<400> 784
gaggccgacc aagagccagg gagccagatg gtggaggcca gcctc             45


<210> 785
<211> 45
<212> DNA
<213> Homo sapiens

<400> 785
ggcctgcaca gtcttgaggc cgaccaagag ccagggagcc agatg             45


<210> 786
<211> 45
<212> DNA
<213> Homo sapiens

<400> 786
tacaccatcg ggctgggcct gcacagtctt gaggccgacc aagag             45


<210> 787
<211> 42
<212> DNA
<213> Homo sapiens

<400> 787
ttccagaact cctacaccat cgggctgggc ctgcacagtc tt                42


<210> 788
<211> 45
<212> DNA
<213> Homo sapiens

<400> 788
ctgtcagccg cacactgttt ccagaactcc tacaccatcg ggctg             45


<210> 789
<211> 45
<212> DNA
<213> Homo sapiens

<400> 789
catccgcagt gggtgctgtc agccgcacac tgtttccaga actcc             45
```

298

```
<210> 790
<211> 45
<212> DNA
<213> Homo sapiens

<400> 790
tcgggcgtcc tggtgcatcc gcagtgggtg ctgtcagccg cacac          45


<210> 791
<211> 45
<212> DNA
<213> Homo sapiens

<400> 791
aacgaattgt tctgctcggg cgtcctggtg catccgcagt gggtg          45


<210> 792
<211> 45
<212> DNA
<213> Homo sapiens

<400> 792
gcactggtca tggaaaacga attgttctgc tcgggcgtcc tggtg          45


<210> 793
<211> 51
<212> DNA
<213> Homo sapiens

<400> 793
tcgcagccct ggcaggcggc actggtcatg gaaaacgaat tgttctgctc g    51


<210> 794
<211> 45
<212> DNA
<213> Homo sapiens

<400> 794
atcagcattg cttcgcagtg ccctaccgcg gggaactctt gcctc          45


<210> 795
<211> 45
<212> DNA
<213> Homo sapiens

<400> 795
tccgtgtccg agtctgacac catccggagc atcagcattg cttcg          45


<210> 796
<211> 45
<212> DNA
<213> Homo sapiens

<400> 796
atcaagttgg acgaatccgt gtccgagtct gacaccatcc ggagc          45


<210> 797
```

299

```
<211> 45
<212> DNA
<213> Homo sapiens

<400> 797
aacgacctca tgctcatcaa gttggacgaa tccgtgtccg agtct                    45

<210> 798
<211> 45
<212> DNA
<213> Homo sapiens

<400> 798
agacccttgc tcgctaacga cctcatgctc atcaagttgg acgaa                    45

<210> 799
<211> 15
<212> PRT
<213> Homo sapiens

<400> 799
Glu Pro Gly Ser Gln Met Val Glu Ala Ser Leu Ser Val Arg His
                5                   10                  15


<210> 800
<211> 15
<212> PRT
<213> Homo sapiens

<400> 800
Glu Ala Asp Gln Glu Pro Gly Ser Gln Met Val Glu Ala Ser Leu
                5                   10                  15


<210> 801
<211> 15
<212> PRT
<213> Homo sapiens

<400> 801
Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
                5                   10                  15


<210> 802
<211> 15
<212> PRT
<213> Homo sapiens

<400> 802
Tyr Thr Ile Gly Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu
                5                   10                  15


<210> 803
<211> 14
<212> PRT
```

300

<213> Homo sapiens

<400> 803
Phe Gln Asn Ser Tyr Thr Ile Gly Leu Gly Leu His Ser Leu
                    5   10

<210> 804
<211> 15
<212> PRT
<213> Homo sapiens

<400> 804
Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu
                    5   10   15

<210> 805
<211> 15
<212> PRT
<213> Homo sapiens

<400> 805
His Pro Gln Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser
                    5   10   15

<210> 806
<211> 15
<212> PRT
<213> Homo sapiens

<400> 806
Ser Gly Val Leu Val His Pro Gln Trp Val Leu Ser Ala Ala His
                    5   10   15

<210> 807
<211> 15
<212> PRT
<213> Homo sapiens

<400> 807
Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln Trp Val
                    5   10   15

<210> 808
<211> 15
<212> PRT
<213> Homo sapiens

<400> 808
Ala Leu Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val
                    5   10   15

<210> 809

301

```
<211> 17
<212> PRT
<213> Homo sapiens

<400> 809
Ser Gln Pro Trp Gln Ala Ala Leu Val Met Glu Asn Glu Leu Phe Cys
                5                   10                  15

Ser


<210> 810
<211> 15
<212> PRT
<213> Homo sapiens

<400> 810
Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala Gly Asn Ser Cys Leu
                5                   10                  15


<210> 811
<211> 15
<212> PRT
<213> Homo sapiens

<400> 811
Ser Val Ser Glu Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser
                5                   10                  15


<210> 812
<211> 15
<212> PRT
<213> Homo sapiens

<400> 812
Ile Lys Leu Asp Glu Ser Val Ser Glu Ser Asp Thr Ile Arg Ser
                5                   10                  15


<210> 813
<211> 15
<212> PRT
<213> Homo sapiens

<400> 813
Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu Ser
                5                   10                  15


<210> 814
<211> 15
<212> PRT
<213> Homo sapiens

<400> 814
```

302

Arg Pro Leu Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu
     5   10   15

<210> 815
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 815
ggaccagcat atgaggaaca gaaggaatga cactc   35

<210> 816
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 816
ccgctcgagt ccaccccaag cttcacagg   29

<210> 817
<211> 1959
<212> DNA
<213> Homo sapiens

<400> 817
atgaggaaca gaaggaatga cactctggac agcacccgga ccctgtactc cagcgcgtct 60
cggagcacag acttgtctta cagtgaaagc gacttggtga atttttattca agcaaatttt 120
aagaaacgag aatgtgtctt ctttaccaaa gattccaagg ccacggagaa tgtgtgcaag 180
tgtggctatg cccagagcca gcacatggaa ggcacccaga tcaaccaaag tgagaaatgg 240
aactacaaga aacacaccaa ggaatttcct accgacgcct tggggatat tcagtttgag 300
acactgggga agaaagggaa gtatatacgt ctgtcctgcg cacggacgc ggaaatcctt 360
tacgagctgc tgacccagca ctggcacctg aaaacaccca acctggtcat ttctgtgacc 420
gggggcgcca agaacttcgc cctgaagccg cgcatgcgca agatcttcag ccggctcatc 480
tacatcgcgc agtccaaagg tgcttggatt ctcacgggag gcacccatta tggcctgatg 540
aagtacatcg gggaggtggt gagagataac accatcagca ggagttcaga ggagaatatt 600
gtggccattg gcatagcagc ttggggcatg gtctccaacc gggacaccct catcaggaat 660
tgcgatgctg agggctattt tttagcccag taccttatgg atgacttcac aagagatcca 720
ctgtatatcc tggacaacaa ccacacacat ttgctgctcg tggacaatgg ctgtcatgga 780
catcccactg tcgaagcaaa gctccggaat cagctagaga agtatatctc tgagcgcact 840
attcaagatt ccaactatgg tggcaagatc cccattgtgt gttttgccca aggaggtgga 900
aaagagactt tgaaagccat caatacctcc atcaaaaata aaattccttg tgtggtggtg 960
gaaggctcgg gccagatcgc tgatgtgatc gctagcctgg tggaggtgga ggatgccctg 1020
acatcttctg ccgtcaagga gaagctggtg cgcttttttac cccgcacggt gtcccggctg 1080
cctgaggagg agactgagag ttggatcaaa tggctcaaag aaattctcga atgttctcac 1140
ctattaacag ttattaaaat ggaagaagct gggatgaaa ttgtgagcaa tgccatctcc 1200
tacgctctat acaaagcctt cagcaccagt gagcaagaca aggataactg gaatgggcag 1260
ctgaagcttc tgctggagtg gaaccagctg gacttagcca atgatgagat tttcaccaat 1320
gaccgccgat gggagtctgc tgaccttcaa gaagtcatgt ttacggctct cataaaggac 1380
agacccaagt ttgtccgcct ctttctggag aatggcttga acctacggaa gtttctcacc 1440
catgatgtcc tcactgaact cttctccaac cacttcagca cgcttgtgta ccggaatctg 1500

303

```
cagatcgcca agaattccta taatgatgcc ctcctcacgt ttgtctggaa actggttgcg 1560
aacttccgaa gaggcttccg gaaggaagac agaaatggcc gggacgagat ggacatagaa 1620
ctccacgacg tgtctcctat tactcggcac cccctgcaag ctctcttcat ctgggccatt 1680
cttcagaata agaaggaact ctccaaagtc atttgggagc agaccagggg ctgcactctg 1740
gcagccctgg gagccagcaa gcttctgaag actctggcca aagtgaagaa cgacatcaat 1800
gctgctgggg agtccgagga gctggctaat gagtacgaga cccgggctgt tgagctgttc 1860
actgagtgtt acagcagcga tgaagacttg gcagaacagc tgctggtcta ttcctgtgaa 1920
gcttggggtg gactcgagca ccaccaccac caccactga                          1959
```

```
<210> 818
<211> 652
<212> PRT
<213> Homo sapiens
```

```
<400> 818
Met Arg Asn Arg Arg Asn Asp Thr Leu Asp Ser Thr Arg Thr Leu Tyr
                5                   10                  15
Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
            20                  25                  30
Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
        35                  40                  45
Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
    50                  55                  60
Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
65                  70                  75                  80
Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
                85                  90                  95
Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
            100                 105                 110
Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
        115                 120                 125
His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys
    130                 135                 140
Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
145                 150                 155                 160
Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
                165                 170                 175
Tyr Gly Leu Met Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
            180                 185                 190
Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
        195                 200                 205
Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
    210                 215                 220
Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
225                 230                 235                 240
Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
                245                 250                 255
Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
            260                 265                 270
Glu Lys Tyr Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
        275                 280                 285
Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu
    290                 295                 300
Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
305                 310                 315                 320
Glu Gly Ser Gly Gln Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
                325                 330                 335
Glu Asp Ala Leu Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
```

304

```
                 340                      345                      350
Leu Pro Arg Thr Val Ser Arg Leu Pro Glu Glu Glu Thr Glu Ser Trp
         355                      360                      365
Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
     370                      375                      380
Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
385                      390                      395                  400
Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
             405                      410                      415
Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
             420                      425                      430
Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
     435                      440                      445
Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
     450                      455                      460
Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
465                      470                      475                  480
His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
             485                      490                      495
Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
             500                      505                      510
Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
         515                      520                      525
Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
     530                      535                      540
Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
545                      550                      555                  560
Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
             565                      570                      575
Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
             580                      585                      590
Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
         595                      600                      605
Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
     610                      615                      620
Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
625                      630                      635                  640
Ala Trp Gly Gly Leu Glu His His His His His His
             645                      650
```

```
<210> 819
<211> 132
<212> PRT
<213> Homo sapien

<400> 819
Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly Phe
1               5                   10                  15
Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile Arg Ser
             20                  25                  30
Gly Gly Gly Ser Pro Thr Val His Ile Gly Pro Thr Ala Phe Leu Gly
         35                  40                  45
Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val
     50                  55                  60
Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val
65                  70                  75                  80
Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala
```

305

```
                     85                     90                     95
Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser Val Asn Trp
            100                     105                     110
Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu
        115                     120                     125
Gly Pro Pro Ala
    130
```

<210> 820
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 820
ggggaattca tgatccggga gaaatttgcc cactgc   36

<210> 821
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 821
gggctcgagt caggagtttg agaccagcct ggc   33

<210> 822
<211> 675
<212> DNA
<213> Homo sapiens

<400> 822
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atgcatcacc atcaccatca cacggccgcg tccgataact tccagctgtc ccagggtggg 60
cagggattcg ccattccgat cgggcaggcg atggcgatcg cgggccagat caagcttccc 120
accgttcata tcgggcctac cgccttcctc ggcttgggtg ttgtcgacaa caacggcaac 180
ggcgcacgag tccaacgcgt ggtcgggagc gctccggcgg caagtctcgg catctccacc 240
ggcgacgtga tcaccgcggt cgacggcgct ccgatcaact cggccaccgc gatggcggac 300
gcgcttaacg ggcatcatcc cggtgacgtc atctcggtga cctggcaaac caagtcgggc 360
ggcacgcgta cagggaacgt gacattggcc gagggacccc cggccgaatt catgatccgg 420
gagaaatttg cccactgcac cgtgctaacc attgcacaca gattgaacac cattattgac 480
agcgacaaga taatggtttt agattcagga agactgaaag aaatatgatga gccgtatgtt 540
ttgctgcaaa ataaagagag cctatttttac aagatggtgc aacaactggg caaggcagaa 600
gccgctgccc tcactgaaac agcaaaacag agatgggggtt tcaccatgtt ggccaggctg 660
gtctcaaact cctga                                                   675
```

<210> 823
<211> 291
<212> DNA
<213> Homo sapiens

306

```
<400> 823
atggggatcc gggagaaatt tgcccactgc accgtgctaa ccattgcaca cagattgaac 60
accattattg acagcgacaa gataatggtt ttagattcag gaagactgaa agaatatgat 120
gagccgtatg ttttgctgca aaataaagag agcctatttt acaagatggt gcaacaactg 180
ggcaaggcag aagccgctgc cctcactgaa acagcaaaac agagatgggg tttcaccatg 240
ttggccaggc tggtctcaaa ctccctcgag caccaccacc accaccactg a        291

<210> 824
<211> 1074
<212> DNA
<213> Homo sapiens

<400> 824
atgtcagcca ttgagagggt gtcagaggca atcgtcagca tccgaagaat ccagaccttt 60
ttgctacttg atgagatatc acagcgcaac cgtcagctgc cgtcagatgg taaaaagatg 120
gtgcatgtgc aggattttac tgcttttttgg gataaggcat cagagacccc aactctacaa 180
ggcctttcct ttactgtcag acctggcgaa ttgttagctg tggtcggccc cgtgggagca 240
gggaagtcat cactgttaag tgccgtgctc ggggaattgg ccccaagtca cgggctggtc 300
agcgtgcatg gaagaattgc ctatgtgtct cagcagccct gggtgttctc gggaactctg 360
aggagtaata ttttatttgg gaagaaatac gaaaggaac gatatgaaaa agtcataaag 420
gcttgtgctc tgaaaaagga tttacagctg ttggaggatg gtgatctgac tgtgatagga 480
gatcggggaa ccacgctgag tggagggcag aaagcacggg taaaccttgc aagagcagtg 540
tatcaagatg ctgacatcta tctcctggac gatcctctca gtgcagtaga tgcggaagtt 600
agcagacact tgttcgaact gtgtatttgt caaattttgc atgagaagat cacaattttta 660
gtgactcatc agttgcagta cctcaaagct gcaagtcaga ttctgatatt gaaagatggt 720
aaaatggtgc agaaggggac ttacactgag ttcctaaaat ctggtataga ttttggctcc 780
cttttaaaga aggataatga ggaaagtgaa caacctccag ttccaggaac tcccacacta 840
aggaatcgta ccttctcaga gtcttcggtt tggtctcaac aatcttctag accctccttg 900
aaagatggtg ctctggagag ccaagataca gagaatgtcc cagttacact atcagaggag 960
aaccgttctg aaggaaaagt tggttttcag gcctataaga attacttcag agctggtgct 1020
cactggattg tcttcatttt ccttattctc gagcaccacc accaccacca ctga       1074

<210> 825
<211> 224
<212> PRT
<213> Homo sapiens

<400> 825
Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
                    5                   10                  15
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
                20                  25                  30
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
            35                  40                  45
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
        50                  55                  60
Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
65                  70                  75                  80
Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
                85                  90                  95
Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser
            100                 105                 110
Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr
        115                 120                 125
Leu Ala Glu Gly Pro Pro Ala Glu Phe Met Ile Arg Glu Lys Phe Ala
    130                 135                 140
His Cys Thr Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Ile Asp
```

```
145                  150                  155                  160
Ser Asp Lys Ile Met Val Leu Asp Ser Gly Arg Leu Lys Glu Tyr Asp
             165                  170                  175
Glu Pro Tyr Val Leu Leu Gln Asn Lys Glu Ser Leu Phe Tyr Lys Met
             180                  185                  190
Val Gln Gln Leu Gly Lys Ala Glu Ala Ala Ala Leu Thr Glu Thr Ala
         195                  200                  205
Lys Gln Arg Trp Gly Phe Thr Met Leu Ala Arg Leu Val Ser Asn Ser
     210                  215                  220


<210> 826
<211> 357
<212> PRT
<213> Homo sapiens

<400> 826
Met Ser Ala Ile Glu Arg Val Ser Glu Ala Ile Val Ser Ile Arg Arg
                 5                  10                  15
Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile Ser Gln Arg Asn Arg Gln
             20                  25                  30
Leu Pro Ser Asp Gly Lys Lys Met Val His Val Gln Asp Phe Thr Ala
         35                  40                  45
Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr Leu Gln Gly Leu Ser Phe
     50                  55                  60
Thr Val Arg Pro Gly Glu Leu Leu Ala Val Val Gly Pro Val Gly Ala
 65                  70                  75                  80
Gly Lys Ser Ser Leu Leu Ser Ala Val Leu Gly Glu Leu Ala Pro Ser
             85                  90                  95
His Gly Leu Val Ser Val His Gly Arg Ile Ala Tyr Val Ser Gln Gln
         100                 105                 110
Pro Trp Val Phe Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly Lys
     115                 120                 125
Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala Leu
     130                 135                 140
Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile Gly
145                 150                 155                 160
Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn Leu
             165                 170                 175
Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp Pro
         180                 185                 190
Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu Leu Cys
         195                 200                 205
Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val Thr His Gln
     210                 215                 220
Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile Leu Lys Asp Gly
225                 230                 235                 240
Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe Leu Lys Ser Gly Ile
             245                 250                 255
Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn Glu Glu Ser Glu Gln Pro
         260                 265                 270
Pro Val Pro Gly Thr Pro Thr Leu Arg Asn Arg Thr Phe Ser Glu Ser
         275                 280                 285
Ser Val Trp Ser Gln Gln Ser Ser Arg Pro Ser Leu Lys Asp Gly Ala
     290                 295                 300
Leu Glu Ser Gln Asp Thr Glu Asn Val Pro Val Thr Leu Ser Glu Glu
305                 310                 315                 320
Asn Arg Ser Glu Gly Lys Val Gly Phe Gln Ala Tyr Lys Asn Tyr Phe
```

308

```
                    325                330                335
Arg Ala Gly Ala His Trp Ile Val Phe Ile Phe Leu Ile Leu Glu His
            340                345                350
His His His His His
        355


<210> 827
<211> 96
<212> PRT
<213> Homo sapiens

<400> 827
Met Gly Ile Arg Glu Lys Phe Ala His Cys Thr Val Leu Thr Ile Ala
                5                10                15
His Arg Leu Asn Thr Ile Ile Asp Ser Asp Lys Ile Met Val Leu Asp
            20                25                30
Ser Gly Arg Leu Lys Glu Tyr Asp Glu Pro Tyr Val Leu Leu Gln Asn
        35                40                45
Lys Glu Ser Leu Phe Tyr Lys Met Val Gln Gln Leu Gly Lys Ala Glu
    50                55                60
Ala Ala Ala Leu Thr Glu Thr Ala Lys Gln Arg Trp Gly Phe Thr Met
65                70                75                80
Leu Ala Arg Leu Val Ser Asn Ser Leu Glu His His His His His His
                85                90                95


<210> 828
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 828
cgcccatggg gatccgggag aaatttgccc actgc                      35


<210> 829
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 829
cgcctcgagg gagtttgaga ccagcctggc caaca                      35


<210> 830
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 830
```

309

```
gcatggacca tatgtcagcc attgagaggg tgtcagag                    38


<210> 831
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 831
ccgctcgaga ataaggaaaa tgaagacaat ccag                        34


<210> 832
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 832
gttgaattca tgcacgggcc ccaggtg                                27


<210> 833
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 833
cccctcgagt cactatggtc tgcctcttga                             30


<210> 834
<211> 915
<212> DNA
<213> Homo sapiens

<400> 834
atgcatcacc atcaccatca cacggccgcg tccgataact tccagctgtc ccagggtggg 60
cagggattcg ccattccgat cgggcaggcg atggcgatcg cgggccagat caagcttccc 120
accgttcata tcgggcctac cgccttcctc ggcttgggtg ttgtcgacaa caacggcaac 180
ggcgcacgag tccaacgcgt ggtcgggagc gctccggcgg caagtctcgg catctccacc 240
ggcgacgtga tcaccgcggt cgacggcgct ccgatcaact cggccaccgc gatggcggac 300
gcgcttaacg ggcatcatcc cggtgacgtc atctcggtga cctggcaaac caagtcgggc 360
ggcacgcgta cagggaacgt gacattggcc gagggacccc cggccgaatt catgcacggg 420
ccccaggtgc tggcacgctg ctccgagtgt gcttgtcctg ccttggctgc cacctctgcg 480
ggggtgcgtc tggaggggt ggaccggcca ccaaccttac ccagtcaagg aagtggatgg 540
ccatgttccc acagcctgag tggctgccac ctgatggctg atggagcaaa ggccttagga 600
aaagcagatg gcccttggcc ctaccttttt gttagaagaa ctgatgttcc atgtcctgca 660
gcgagtgagg ttggtggctg tgcccccagc tcctggcgcg ccctcgcaga ggtgactggt 720
tgctctttgg gccctcttgg ccttgcccag catgcacaag cctcagtgct actactgtgc 780
```

310

```
tacaaatgga gccatatagg ggaaacgagc agccatctca ggagcaaggt gtatgctgcc 840
tttgggggct ccagtccttg cctcaagggt cttatgtcac tgtgggcttc ttggttgtca 900
agaggcagac catag                                                   915
```

<210> 835
<211> 304
<212> PRT
<213> Homo sapiens

<400> 835

```
Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
                5                   10                  15
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
            20                  25                  30
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
            35                  40                  45
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
        50                  55                  60
Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
65                  70                  75                  80
Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
                85                  90                  95
Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser
            100                 105                 110
Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr
            115                 120                 125
Leu Ala Glu Gly Pro Pro Ala Glu Phe Met His Gly Pro Gln Val Leu
        130                 135                 140
Ala Arg Cys Ser Glu Cys Ala Cys Pro Ala Leu Ala Ala Thr Ser Ala
145                 150                 155                 160
Gly Val Arg Leu Glu Gly Val Asp Arg Pro Pro Thr Leu Pro Ser Gln
                165                 170                 175
Gly Ser Gly Trp Pro Cys Ser His Ser Leu Ser Gly Cys His Leu Met
            180                 185                 190
Ala Asp Gly Ala Lys Ala Leu Gly Lys Ala Asp Gly Pro Trp Pro Tyr
            195                 200                 205
Leu Phe Val Arg Arg Thr Asp Val Pro Cys Pro Ala Ala Ser Glu Val
        210                 215                 220
Gly Gly Cys Ala Pro Ser Ser Trp Arg Ala Leu Ala Glu Val Thr Gly
225                 230                 235                 240
Cys Ser Leu Gly Pro Leu Gly Leu Ala Gln His Ala Gln Ala Ser Val
                245                 250                 255
Leu Leu Leu Cys Tyr Lys Trp Ser His Ile Gly Glu Thr Ser Ser His
            260                 265                 270
Leu Arg Ser Lys Val Tyr Ala Ala Phe Gly Gly Ser Ser Pro Cys Leu
            275                 280                 285
Lys Gly Leu Met Ser Leu Trp Ala Ser Trp Leu Ser Arg Gly Arg Pro
        290                 295                 300
```

<210> 836
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 836

311

```
cgaagtcacg tggaggccag cctc                                        24


<210> 837
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 837
cctgaccgaa ttcattaact ggcctggac                                   29


<210> 838
<211> 166
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (1)...(166)
<223> Xaa = Any Amino Acid

<400> 838
Met Gly His His His His His His Val Glu Ala Ser Leu Ser Val Arg
 1               5                  10                  15
His Pro Glu Tyr Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu Ile
            20                  25                  30
Lys Leu Asp Glu Ser Val Ser Glu Ser Asp Thr Ile Arg Ser Ile Ser
        35                  40                  45
Ile Ala Ser Gln Cys Pro Thr Ala Gly Asn Ser Cys Leu Val Ser Gly
    50                  55                  60
Trp Gly Leu Leu Ala Asn Gly Arg Met Pro Thr Val Leu Gln Cys Val
65                  70                  75·                  80
Asn Val Ser Val Val Ser Glu Glu Val Cys Ser Lys Leu Tyr Asp Pro
                85                  90                  95
Leu Tyr His Pro Ser Met Phe Cys Ala Gly Gly Gly Gln Xaa Gln Xaa
            100                 105                 110
Asp Ser Cys Asn Gly Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly Tyr
            115                 120                 125
Leu Gln Gly Leu Val Ser Phe Gly Lys Ala Pro Cys Gly Gln Val Gly
        130                 135                 140
Val Pro Gly Val Tyr Thr Asn Leu Cys Lys Phe Thr Glu Trp Ile Glu
145                 150                 155                 160
Lys Thr Val Gln Ala Ser
                165


<210> 839
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(504)
<223> n = A,T,C or G
```

312

<400> 839
atgggccatc atcatcatca tcacgtggag gccagcctct ccgtacggca cccagagtac   60
aacagaccct tgctcgctaa cgacctcatg ctcatcaagt tggacgaatc cgtgtccgag   120
tctgacacca tccggagcat cagcattgct tcgcagtgcc ctaccgcggg gaactcttgc   180
ctcgtttctg gctggggtct gctggcgaac ggcagaatgc ctaccgtgct gcagtgcgtg   240
aacgtgtcgg tggtgtctga ggaggtctgc agtaagctct atgacccgct gtaccacccc   300
agcatgttct gcgccggcgg agggcaanac cagaangact cctgcaacgg tgactctggg   360
gggcccctga tctgcaacgg gtacttgcag ggccttgtgt ctttcggaaa agccccgtgt   420
ggccaagttg gcgtgccagg tgtctacacc aacctctgca aattcactga gtggatagag   480
aaaaccgtcc aggccagtta atga   504

<210> 840
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 840
ctcagggttc cggagccgcg g   21

<210> 841
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 841
ctatagaatt cattaccaaa aagctgggct ccagc   35

<210> 842
<211> 241
<212> PRT
<213> Homo sapiens

<400> 842
Met Gln His His His His His His Leu Arg Val Pro Glu Pro Arg Pro
1   5   10   15
Gly Glu Ala Lys Ala Glu Gly Ala Ala Pro Pro Thr Pro Ser Lys Pro
            20   25   30
Leu Thr Ser Phe Leu Ile Gln Asp Ile Leu Arg Asp Gly Ala Gln Arg
            35   40   45
Gln Gly Gly Arg Thr Ser Ser Gln Arg Gln Arg Asp Pro Glu Pro Glu
        50   55   60
Pro Glu Pro Glu Pro Glu Gly Gly Arg Ser Arg Ala Gly Ala Gln Asn
65   70   75   80
Asp Gln Leu Ser Thr Gly Pro Arg Ala Ala Pro Glu Glu Ala Glu Thr
                85   90   95
Leu Ala Glu Thr Glu Pro Glu Arg His Leu Gly Ser Tyr Leu Leu Asp
            100   105   110
Ser Glu Asn Thr Ser Gly Ala Leu Pro Arg Leu Pro Gln Thr Pro Lys
            115   120   125

313

```
Gln Pro Gln Lys Arg Ser Arg Ala Ala Phe Ser His Thr Gln Val Ile
    130                 135                 140
Glu Leu Glu Arg Lys Phe Ser His Gln Lys Tyr Leu Ser Ala Pro Glu
145                 150                 155      ·          160
Arg Ala His Leu Ala Lys Asn Leu Lys Leu Thr Glu Thr Gln Val Lys
                165                 170                 175
Ile Trp Phe Gln Asn Arg Arg Tyr Lys Thr Lys Arg Lys Gln Leu Ser
            180                 185                 190
Ser Glu Leu Gly Asp Leu Glu Lys His Ser Ser Leu Pro Ala Leu Lys
        195                 200                 205
Glu Glu Ala Phe Ser Arg Ala Ser Leu Val Ser Val Tyr Asn Ser Tyr
    210                 215                 220
Pro Tyr Tyr Pro Tyr Leu Tyr Cys Val Gly Ser Trp Ser Pro Ala Phe
225                 230                 235                 240
Trp
```

```
<210> 843
<211> 729
<212> DNA
<213> Homo sapiens

<400> 843
atgcagcatc accaccatca ccacctcagg gttccggagc cgcggcccgg ggaggcgaaa      60
gcggaggggg ccgcgccgcc gaccccgtcc aagccgctca cgtccttcct catccaggac     120
atcctgcggg acggcgcgca gcggcaaggc ggccgcacga gcagccagag acagcgcgac     180
ccggagccgg agccagagcc agagccagag ggaggacgca gccgcgccgg ggcgcagaac     240
gaccagctga gcaccgggcc ccgcgccgcg ccggatgagg ccgagacgct ggcagagacc     300
gagccagaaa ggcacttggg gtcttatctg ttggactctg aaaacacttc aggcgccctt     360
ccaaggcttc cccaaacccc taagcagccg cagaagcgct cccgagctgc cttctcccac     420
actcaggtga tcgagttgga gaggaagttc agccatcaga agtacctgtc ggcccctgaa     480
cgggcccacc tggccaagaa cctcaagctc acggagaccc aagtgaagat atggttccag     540
aacagacgct ataagactaa gcgaaagcag ctctcctcgg agctgggaga cttggagaag     600
cactcctttt tgccggccct gaaagaggag gccttctccc gggcctccct ggtctccgtg     660
tataacagct atccttacta cccatacctg cactgcgtgg gcagctggag cccagctttt     720
tggtaatga                                                             729
```

```
<210> 844
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 844
ctactaagcg ctggagtgag ggatcag                                          27
```

```
<210> 845
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer
```

314

<400> 845
catcgagaat tcactactct ctgactagat gtc   33

<210> 846
<211> 161
<212> PRT
<213> Homo sapiens

<400> 846
Met Gln His His His His His His Ala Gly Val Arg Asp Gln Gly Gln
1   5   10   15
Gly Ala Arg Trp Pro His Thr Gly Lys Arg Gly Pro Leu Leu Gln Gly
            20   25   30
Leu Thr Trp Ala Thr Gly Gly His Cys Phe Ser Ser Glu Glu Ser Gly
        35   40   45
Ala Val Asp Gly Ala Gly Gln Lys Lys Asp Arg Ala Trp Leu Arg Cys
    50   55   60
Pro Glu Ala Val Ala Gly Phe Pro Leu Gly Ser Asp Cys Arg Glu Gly
65   70   75   80
Gly Arg Gln Gly Cys Gly Gly Ser Asp Asp Glu Asp Asp Leu Gly Val
                85   90   95
Ala Pro Gly Leu Ala Pro Ala Trp Ala Leu Thr Gln Pro Pro Ser Gln
            100   105   110
Ser Pro Gly Pro Gln Ser Leu Pro Ser Thr Pro Ser Ser Ile Trp Pro
        115   120   125
Gln Trp Val Ile Leu Ile Thr Glu Leu Thr Ile Pro Ser Pro Ala His
    130   135   140
Gly Pro Pro Trp Leu Pro Asn Ala Leu Glu Arg Gly His Leu Val Arg
145   150   155   160
Glu

<210> 847
<211> 489
<212> DNA
<213> Homo sapiens

<400> 847
atgcagcatc accaccatca ccacgctgga gtgagggatc aggggcaggg cgcgagatgg   60
cctcacacag ggaagagagg gcccctcctg cagggcctca cctgggccac aggaggacac   120
tgcttttcct ctgaggagtc aggagctgtg gatggtgctg gacagaagaa ggacagggcc   180
tggctcaggt gtccagaggc tgtcgctggc ttccctttgg gatcagactg cagggaggga   240
gggcggcagg gttgtggggg gagtgacgat gaggatgacc tggggggtggc tccaggcctt   300
gccctgcct gggccctcac ccagcctccc tcacagtctc ctggccctca gtctctcccc   360
tccactccat cctccatctg gcctcagtgg gtcattctga tcactgaact gaccataccc   420
agccctgccc acggccctcc atggctcccc aatgccctgg agaggggaca tctagtcaga   480
gagtagtga   489

<210> 848
<211> 132
<212> PRT
<213> Homo sapiens

<400> 848
Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly Phe

315

```
 1                   5                   10                  15
Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile Arg Ser
            20                  25                  30
Gly Gly Gly Ser Pro Thr Val His Ile Gly Pro Thr Ala Phe Leu Gly
        35                  40                  45
Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val
    50                  55                  60
Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val
65                  70                  75                  80
Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala
                85                  90                  95
Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser Val Asn Trp
            100                 105                 110
Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu
        115                 120                 125
Gly Pro Pro Ala
    130
```

```
<210> 849
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 849
ggggaattca tcacctatgt gccgcctctg c                              31


<210> 850
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 850
gggctcgagt cactcgccca cgaaatccgt gtaaaacagc                     40


<210> 851
<211> 1203
<212> DNA
<213> Homo sapiens

<400> 851
atgcatcacc atcaccatca cacggccgcg tccgataact tccagctgtc ccagggtggg 60
cagggattcg ccattccgat cgggcaggcg atggcgatcg cgggccagat caagcttccc 120
accgttcata tcgggcctac cgccttcctc ggcttgggtg ttgtcgacaa caacggcaac 180
ggcgcacgag tccaacgcgt ggtcgggagc gctccggcgg caagtctcgg catctccacc 240
ggcgacgtga tcaccgcggt cgacggcgct ccgatcaact cggccaccgc gatggcggac 300
gcgcttaacg gcatcatcc cggtgacgtc atctcggtga cctggcaaac caagtcgggc 360
ggcacgcgta cagggaacgt gacattggcc gagggacccc cggccgaatt catcacctat 420
gtgccgcctc tgctgctgga agtgggggta gaggagaagt tcatgaccat ggtgctgggc 480
attggtccag tgctgggcct ggtctgtgtc ccgctcctag ctcagccag tgaccactgg 540
cgtggacgct atggccgccg ccggcccttc atctgggcac tgtccttggg catcctgctg 600
```

316

```
agcctctttc tcatcccaag ggccggctgg ctagcagggc tgctgtgccc ggatcccagg 660
cccctggagc tggcactgct catcctgggc gtggggctgc tggacttctg tggccaggtg 720
tgcttcactc cactggaggc cctgctctct gacctcttcc gggacccgga ccactgtcgc 780
caggcctact ctgtctatgc cttcatgatc agtcttgggg gctgcctggg ctacctcctg 840
cctgccattg actgggacac cagtgccctg gccccctacc tgggcaccca ggaggagtgc 900
ctctttggcc tgctcaccct catcttcctc acctgcgtag cagccacact gctggtggct 960
gaggaggcag cgctgggccc caccgagcca gcagaagggc tgtcggcccc ctccttgtcg 1020
ccccactgct gtccatgccg ggcccgcttg gctttccgga acctgggcgc cctgcttccc 1080
cggctgcacc agctgtgctg ccgcatgccc cgcaccctgc gccggctctt cgtggctgag 1140
ctgtgcagct ggatggcact catgaccttc acgctgtttt acacggattt cgtgggcgag 1200
tga                                                          1203
```

<210> 852
<211> 400
<212> PRT
<213> Homo sapiens

<400> 852

```
Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
                5                   10                  15
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
                20                  25                  30
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
                35                  40                  45
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
        50                  55                  60
Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
65                  70                  75                  80
Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
                85                  90                  95
Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser
                100                 105                 110
Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr
        115                 120                 125
Leu Ala Glu Gly Pro Pro Ala Glu Phe Ile Thr Tyr Val Pro Pro Leu
    130                 135                 140
Leu Leu Glu Val Gly Val Glu Glu Lys Phe Met Thr Met Val Leu Gly
145                 150                 155                 160
Ile Gly Pro Val Leu Gly Leu Val Cys Val Pro Leu Leu Gly Ser Ala
                165                 170                 175
Ser Asp His Trp Arg Gly Arg Tyr Gly Arg Arg Arg Pro Phe Ile Trp
                180                 185                 190
Ala Leu Ser Leu Gly Ile Leu Leu Ser Leu Phe Leu Ile Pro Arg Ala
        195                 200                 205
Gly Trp Leu Ala Gly Leu Leu Cys Pro Asp Pro Arg Pro Leu Glu Leu
    210                 215                 220
Ala Leu Leu Ile Leu Gly Val Gly Leu Leu Asp Phe Cys Gly Gln Val
225                 230                 235                 240
Cys Phe Thr Pro Leu Glu Ala Leu Leu Ser Asp Leu Phe Arg Asp Pro
                245                 250                 255
Asp His Cys Arg Gln Ala Tyr Ser Val Tyr Ala Phe Met Ile Ser Leu
                260                 265                 270
Gly Gly Cys Leu Gly Tyr Leu Leu Pro Ala Ile Asp Trp Asp Thr Ser
        275                 280                 285
Ala Leu Ala Pro Tyr Leu Gly Thr Gln Glu Glu Cys Leu Phe Gly Leu
    290                 295                 300
Leu Thr Leu Ile Phe Leu Thr Cys Val Ala Ala Thr Leu Leu Val Ala
305                 310                 315                 320
```

317

```
Glu Glu Ala Ala Leu Gly Pro Thr Glu Pro Ala Glu Gly Leu Ser Ala
             325                 330                 335
Pro Ser Leu Ser Pro His Cys Cys Pro Cys Arg Ala Arg Leu Ala Phe
             340                 345                 350
Arg Asn Leu Gly Ala Leu Leu Pro Arg Leu His Gln Leu Cys Cys Arg
         355                 360                 365
Met Pro Arg Thr Leu Arg Arg Leu Phe Val Ala Glu Leu Cys Ser Trp
     370                 375                 380
Met Ala Leu Met Thr Phe Thr Leu Phe Tyr Thr Asp Phe Val Gly Glu
385                 390                 395                 400
```

```
<210> 853
<211> 20
<212> PRT
<213> Homo sapiens
```

```
<400> 853
Leu Leu Pro Pro Pro Pro Ala Leu Cys Gly Ala Ser Ala Cys Asp Val
                 5                 10                 15
Ser Val Arg Val
             20
```

```
<210> 854
<211> 60
<212> DNA
<213> Homo sapiens
```

```
<400> 854
ctgctcccac ctccacccgc gctctgcggg gcctctgcct gtgatgtctc cgtacgtgtg 60
```

```
<210> 855
<211> 10
<212> PRT
<213> Homo sapiens
```

```
<400> 855
Ala Ser Ala Cys Asp Val Ser Val Arg Val
                 5                 10
```

```
<210> 856
<211> 30
<212> DNA
<213> Homo sapiens
```

```
<400> 856
gcctctgcct gtgatgtctc cgtacgtgtg                                    30
```

```
<210> 857
<211> 9
<212> PRT
<213> Homo sapiens
```

```
<400> 857
Ala Ser Ala Cys Asp Val Ser Val Arg
 1                 5
```

```
<210> 858
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```
<211> 9
<212> PRT
<213> Homo sapiens

<400> 858
Ser Ala Cys Asp Val Ser Val Arg Val
                 5


<210> 859
<211> 27
<212> DNA
<213> Homo sapiens

<400> 859
tctgcctgtg atgtctccgt acgtgtg                                    27


<210> 860
<211> 19
<212> PRT
<213> Homo sapiens

<400> 860
Gly Ile Gly Pro Val Leu Gly Leu Val Cys Val Pro Leu Leu Gly Ser
                 5                  10                  15
Ala Ser Asp


<210> 861
<211> 19
<212> PRT
<213> Homo sapiens

<400> 861
Val Pro Pro Leu Leu Leu Glu Val Gly Val Glu Glu Lys Phe Met Thr
                 5                  10                  15
Met Val Leu


<210> 862
<211> 19
<212> PRT
<213> Homo sapiens

<400> 862
Met Val Gln Arg Leu Trp Val Ser Arg Leu Leu Arg His Arg Lys Ala
                 5                  10                  15
Gln Leu Leu

<210> 863
<211> 57
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(57)
<223> n = A,T,C or G
```

319

<400> 863
ggnathggnc cngtnytngg nytngtntgy gtnccnytny tnggnwsngc nwsngay   57

<210> 864
<211> 57
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(57)
<223> n = A,T,C or G

<400> 864
gtnccnccny tnytnytnga rgtnggngtn gargaraart tyatgacnat ggtnytn   57

<210> 865
<211> 57
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(57)
<223> n = A,T,C or G

<400> 865
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<210> 866
<211> 9
<212> PRT
<213> Homo sapiens

<400> 866
Val Leu Gln Cys Val Asn Val Ser Val
 1   5

<210> 867
<211> 9
<212> PRT
<213> Homo sapiens

<400> 867
Arg Met Pro Thr Val Leu Gln Cys Val
 1   5

<210> 868
<211> 9
<212> PRT
<213> Homo sapiens

<400> 868
Asn Leu Cys Lys Phe Thr Glu Trp Ile
 1   5

320

```
<210> 869
<211> 9
<212> PRT
<213> Homo sapiens

<400> 869
Met Leu Ile Lys Leu Asp Glu Ser Val
 1               5


<210> 870
<211> 9
<212> PRT
<213> Homo sapiens

<400> 870
Leu Leu Ala Asn Asp Leu Met Leu Ile
 1               5


<210> 871
<211> 10
<212> PRT
<213> Homo sapiens

<400> 871
Leu Leu Ala Asn Gly Arg Met Pro Thr Val
 1               5                   10


<210> 872
<211> 10
<212> PRT
<213> Homo sapiens

<400> 872
Leu Met Leu Ile Lys Leu Asp Glu Ser Val
 1               5                   10


<210> 873
<211> 10
<212> PRT
<213> Homo sapiens

<400> 873
Val Leu Gln Cys Val Asn Val Ser Val Val
 1               5                   10


<210> 874
<211> 10
<212> PRT
<213> Homo sapiens

<400> 874
Gly Leu Leu Ala Asn Gly Arg Met Pro Thr
 1               5                   10


<210> 875
<211> 10
<212> PRT
```

321

<213> Homo sapiens

<400> 875
Thr Val Leu Gln Cys Val Asn Val Ser Val
 1   5   10

<210> 876
<211> 9
<212> PRT
<213> Homo sapiens

<400> 876
Gly Val Leu Val His Pro Gln Trp Val
 1   5

<210> 877
<211> 9
<212> PRT
<213> Homo sapiens

<400> 877
Val Leu Val His Pro Gln Trp Val Leu
 1   5

<210> 878
<211> 1195
<212> DNA
<213> Homo sapiens

<400> 878
ccgagactca cggtcaagct aaggcgaaga gtgggtggct gaagccatac tattttatag 60
aattaatgga aagcagaaaa gacatcacaa accaagaaga actttggaaa atgaagccta 120
ggagaaattt agaagaagac gattatttgc ataaggacac gggagagacc agcatgctaa 180
aaagacctgt gcttttgcat ttgcaccaaa cagcccatgc tgatgaattt gactgccctt 240
cagaacttca gcacacacag gaactctttc cacagtggca cttgccaatt aaaatagctg 300
ctattatagc atctctgact tttctttaca ctcttctgag ggaagtaatt cacccttag 360
caacttccca tcaacaatat ttttataaaa ttccaatcct ggtcatcaac aaagtcttgc 420
caatggtttc catcactctc ttggcattgg tttacctgcc aggtgtgata gcagcaattg 480
tccaacttca taatggaacc aagtataaga agtttccaca ttggttggat aagtggatgt 540
taacaagaaa gcagtttggg cttctcagtt tctttttgc tgtactgcat gcaatttata 600
gtctgtctta cccaatgagg cgatcctaca gatacaagtt gctaaactgg gcatatcaac 660
aggtccaaca aaataaagaa gatgcctgga ttgagcatga tgtttggaga atggagattt 720
atgtgtctct gggaattgtg ggattggcaa tactggctct gttggctgtg acatctattc 780
catctgtgag tgactctttg acatggagag aatttcacta tattcagagc aagctaggaa 840
ttgtttccct tctactgggc acaatacacg cattgatttt tgcctggaat aagtggatag 900
atataaaaca atttgtatgg tatacacctc caactttat gatagctgtt ttccttccaa 960
ttgttgtcct gatatttaaa agcatactat tcctgccatg cttgaggaag aagatactga 1020
agattagaca tggttgggaa gacgtcacca aaattaacaa aactgagata tgttcccagt 1080
tgtagaatta ctgtttacac acatttttgt tcaatattga tatatttat caccaacatt 1140
tcaagtttgt atttgttaat aaaatgatta ttcaaggaaa aaaaaaaaa aaaaa   1195

<210> 879
<211> 339
<212> PRT
<213> Homo sapiens

322

<400> 879
Met Glu Ser Arg Lys Asp Ile Thr Asn Gln Glu Glu Leu Trp Lys Met
                5   10   15
Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys Asp Thr
            20   25   30
Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His Leu His Gln
        35   40   45
Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu Leu Gln His Thr
    50   55   60
Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile Lys Ile Ala Ala Ile
65   70   75   80
Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu Leu Arg Glu Val Ile His
                85   90   95
Pro Leu Ala Thr Ser His Gln Gln Tyr Phe Tyr Lys Ile Pro Ile Leu
            100   105   110
Val Ile Asn Lys Val Leu Pro Met Val Ser Ile Thr Leu Leu Ala Leu
            115   120   125
Val Tyr Leu Pro Gly Val Ile Ala Ala Ile Val Gln Leu His Asn Gly
    130   135   140
Thr Lys Tyr Lys Lys Phe Pro His Trp Leu Asp Lys Trp Met Leu Thr
145   150   155   160
Arg Lys Gln Phe Gly Leu Leu Ser Phe Phe Phe Ala Val Leu His Ala
            165   170   175
Ile Tyr Ser Leu Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu
            180   185   190
Leu Asn Trp Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp
        195   200   205
Ile Glu His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile
    210   215   220
Val Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser
225   230   235   240
Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser Lys
            245   250   255
Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu Ile Phe
            260   265   270
Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp Tyr Thr Pro
        275   280   285
Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val Val Leu Ile Phe
    290   295   300
Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys Lys Ile Leu Lys Ile
305   310   315   320
Arg His Gly Trp Glu Asp Val Thr Lys Ile Asn Lys Thr Glu Ile Cys
            325   330   335
Ser Gln Leu

<210> 880
<211> 2172
<212> DNA
<213> Homo sapiens

<400> 880
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aaaatattgg aatttttattc atcttaaaaa ttggacccgg ccttatttac catctttaat 120
ccattttagt actatgggtg agtacatgga attgaagtct ggcttaaatc ttcagaaagt 180
tatatatcta ttttattttta ttttttttgag acagagtctc gctgtgtcac ccaggctgga 240
gtgcggtgcc acaatcttgg ctcactgcaa cctctgagtc ccaggttcaa gcgatactca 300
tgcctcggcc tcctgagtag ctgggactac aggcgtgcac caccacatct ggctaatctt 360
tttttgtatt tttagtagag acggggtttc actgtggtct ccatctcctg acctcgtgat 420

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ccgcctgcct cccaaagtgc tgggattaca ggcatgagcc accgcacaca gctgggactg 480
ggtaatttat aaagaaaaga ggtttaatga ctcacagttc cgcatggctg gagaggcctc 540
aggaaactta caatcatggt ggaaggcgaa ggggaagcaa ggcacgtctt acatggtggc 600
aggagagaac gagtgagggg ggagactgcc acaaactttt ttttttttgag acaagagtct 660
ggccctgttg cccaggctgg agtgcagtgg catgatctca gctcactgca acctctgcct 720
cacaggttca agcaattctc atgcctcagc ctcccgcata gctgggacca caggtatgca 780
ccaccacacc tagctaattt ttgtagtttt agtagagatg gggtctcact atgttgctca 840
ggctggtcta aaactcctgg gctccagcaa tccgcctgcc ttggcctccc aaagtgctgg 900
ggttacaggc ataagccacc acatccagcc tgccacatac ttttaaacta tcaggtctca 960
tgagaactca tgcactatca caagaatagc atggggaaaa tccccccccat aatccaatca 1020
cctcccacca ggtctcctcc gacacgtggg attgggtggg gacacagagc caaaccgtat 1080
cagatgctgc aggggctggg gacactgaga ccactcagac ctggtgtctc tgtcactctt 1140
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taaggtgcaa attgcacagg aactccttaa gacatacatc atccactcag cagttttagg 1260
ttcgcagcaa aatggagtgg aaggaacaga aatttcctgt gcaccctcc ccgctgtctc 1320
cgccatatcg gcatcctgca tccagagtgg tggactggtt acaggctatg aacctacact 1380
gatgcggcac caccacccag agtccacggg ttatgttggt tcacatttac tcttgctgtg 1440
gtatggtcta taggtttgga cagatgtccg ataatccttt ttacattttg gcatccttgg 1500
gtagctcgtc ttgtaggaat ggacttgctt caaagtggag gcaggcagat ccttcagacg 1560
ggtatatgga gccctgtttt cagttgcttt tctaattctc tcttatcgtt tacctcaaaa 1620
tcttcctgag gtctcgcttc cttttaaaat ccttgtctac tttgcagcat cactctgaca 1680
ctccattgat tcctcagcac ctactgacta cacggttagg agtgcaaggg tagaattcat 1740
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gatttgacct ctgaacaaat acacactgta ctaagaatct acacaccgaa agacaaaaac 1860
aagacaaatt tgagtgctac aggtgtcacg cttggcatca cacatgtgcc tgtgtattcc 1920
tctaggtggt taccaggagc tctgccactg catgtccact agtgacgggt tcgctccacc 1980
accccagctg ggtagccgct gctctcacat aagggtccca attaaaattg ccaggaataa 2040
attcccccgg actttgactt ctcaagagct aagaaggttt gctgagtatt ctggcatgat 2100
gtttggtgat caaacaactg ctggccaaaa atgatgagta tttcccctc ttgctgaaga 2160
tgtgctccat ac                                                     2172
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```
<210> 881
<211> 2455
<212> DNA
<213> Homo sapiens
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<400> 881
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ttattgcttt tgttgcaaat gccgtggctt catctgagga attctagaat tcagagggtg 180
tagccctcca ctctgctgtc ttgctatctg ctctcattgc atccgtttaa cctgcattct 240
gaaagatgtt tctcaggttt ttccttgacg attttcttct tttctgattc tgacaatgtt 300
ttaaatcatt gtactgtggt tatcatttct ctgcatttat tttacccatc ttcctttgta 360
acttgtccta ttgtctttta atttctgcct gttctttatg gctttcaact tcataaataa 420
catgttttct caaatctctt tgtgaattcc agagagggcc aggcacggtg gctcacatct 480
gtaatcccag cactttgggg aggctgagac gggtggatca cttgaggtca ggagtttgag 540
accagcctgg ccaacatggt gaaatcccgt ttcactaaaa atacaaaaat tacccaggca 600
tggtggcggg cgcctgtaat cccaggtact cgggaggctg aggaggaga atcgcttgaa 660
cctgggaggc tgaggagga gaatcgcttg aacccgggag gcagaggttg cagtgaaccg 720
agatcatgtt gctgcactcc agcctggtca acagagcaag actctgcctc aaaaacaaac 780
aaataaacaa acaaacaaac aaaacagaga gatttgctg caatgtacaa ggagcaattt 840
gctcctttaa aaaaataatt tttggccagg cacagtggct cacacctgta atcccagcac 900
tttgggaagc caaggtgggt ggatcatttg aggtcaggag tttgagatca gcctggccaa 960
catggtgaaa cactatctct attaaaaata caaaatgtg ctcagtgtgg tggtgcacat 1020
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ttttttgtagt tttagtagag atggggtctc actatgttgc tcaggctggt ctaaaactcc 1140
tgggctccag caatccgcct gccttggcct cccaaagtgc tggggttaca ggcataagcc 1200
accacatcca gcctgccaca tacttttaaa ctatcaggtc tcatgagaac tcatgcacta 1260
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324

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tcacaagaat agcatgggga aaatcccccc cataatccaa tcacctccca ccaggtctcc 1320
tccgacacgt gggattgggt ggggacacag agccaaaccg tatcagatgc tgcaggggct 1380
ggggacactg agaccactca gacctggtgt ctctgtcact cttctgggct ctgtctgtct 1440
ccaggacctc cctccccttc catggtatag aaggaaagtg ctgtaaggtg caaattgcac 1500
aggaactcct taagacatac atcatccact cagcagtttt aggttcgcag caaaatggag 1560
tggaaggaac agaaatttcc tgtgcacccc tccccgctgt ctccgccata tcggcatcct 1620
gcatccagag tggtggactg gttacaggct atgaacctac actgatgcgg caccaccacc 1680
cagagtccac aggttatgtt ggttcacatt tactcttgct gtggtatggt ctataggttt 1740
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aatggacttg cttcaaagtg gaggcaggca gatccttcag acgggtatat ggagccctgt 1860
tttcagttgc tttttctaatt ctctcttatc gtttacctca aaatcttcct gaggtctcgc 1920
ttccttttaa aatccttgtc tactttgcag catcactctg acactccatt gattcctcag 1980
cacctactga ctacacggtt aggagtgcaa gggtagaatt catgtttttat tcatctttgg 2040
gtctgtagca cccagcaaag tgctcagtaa atgcgcagta attgatttga cctctgaaca 2100
aatacacact gtactaagaa tctacacacc gaaagacaaa aacaagacaa atttgagtgc 2160
tacaggtgtc acgcttggca tcacacatgt gcctgtgtat tcctctaggt ggttaccagg 2220
agctctgcca ctgcatgtcc actagtgacg ggttcgctcc accaccccag ctgggtagcc 2280
gctgctctca cataaggggt ccaattaaaa ttgccaggaa taaattcccc cggactttga 2340
cttctcaaga gctaagaagg tttgctgagt attctggcat gatgtttggt gatcaaacaa 2400
ctgctggcca aaaatgatga gtatttcccc ctcttgctga agatgtgctc catac      2455
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<210> 882
<211> 2455
<212> DNA
<213> Homo sapiens
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<400> 882
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ttattgcttt tgttgcaaat gccgtggctt catctgagga attctagaat tcagagggtg 180
tagccctcca ctctgctgtc ttgctatctg ctctcattgc atccgtttaa cctgcattct 240
gaaagatgtt tctcaggttt ttccttgacg attttcttct tttctgattc tgacaatgtt 300
ttaaatcatt gtactgtggt tatcatttct ctgcatttat tttacccatc ttcctttgta 360
acttgtccta ttgtctttta atttctgcct gttctttatg gctttcaact tcataaataa 420
catgtttttct caaatctctt tgtgaattcc agagagggcc aggcacggtg gctcacatct 480
gtaatcccag cactttgggg aggctgagac gggtggatca cttgaggtca ggagtttgag 540
accagcctgg ccaacatggt gaaatcccgt ttcactaaaa atacaaaaat tacccaggca 600
tggtggcggg cgcctgtaat cccaggtact cgggaggctg agggaggaga atcgcttgaa 660
cctgggaggc tgagggagga gaatcgcttg aacccgggag gcagaggttg cagtgaaccg 720
agatcatgtt gctgcactcc agcctggtca acagagcaag actctgcctc aaaaacaaac 780
aaataaacaa acaaacaaac aaaacagaga gattttgctg caatgtacaa ggagcaattt 840
gctcctttaa aaaaataatt tttggccagg cacagtggct cacacctgta atcccagcac 900
tttgggaagc caaggtgggt ggatcatttg aggtcaggag tttgagatca gcctggccaa 960
catggtgaaa cactatctct attaaaaata caaaaatgtg ctcagtgtgg tggtgcacat 1020
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accacatcca gcctgccaca tacttttaaa ctatcaggtc tcatgagaac tcatgcacta 1260
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tccgacacgt gggattgggt ggggacacag agccaaaccg tatcagatgc tgcaggggct 1380
ggggacactg agaccactca gacctggtgt ctctgtcact cttctgggct ctgtctgtct 1440
ccaggacctc cctccccttc catggtatag aaggaaagtg ctgtaaggtg caaattgcac 1500
aggaactcct taagacatac atcatccact cagcagtttt aggttcgcag caaaatggag 1560
tggaaggaac agaaatttcc tgtgcacccc tccccgctgt ctccgccata tcggcatcct 1620
gcatccagag tggtggactg gttacaggct atgaacctac actgatgcgg caccaccacc 1680
cagagtccac aggttatgtt ggttcacatt tactcttgct gtggtatggt ctataggttt 1740
ggacagatgt ccgataatcc tttttacatt ttggcatcct tgggtagctc gtcttgtagg 1800
aatggacttg cttcaaagtg gaggcaggca gatccttcag acgggtatat ggagccctgt 1860
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tttcagttgc ttttctaatt ctctcttatc gtttacctca aaatcttcct gaggtctcgc 1920
ttcctttta aatccttgtc tactttgcag catcactctg acactccatt gattcctcag 1980
cacctactga ctacacggtt aggagtgcaa gggtagaatt catgttttat tcatctttgg 2040
gtctgtagca cccagcaaag tgctcagtaa atgcgcagta attgatttga cctctgaaca 2100
aatacacact gtactaagaa tctacacacc gaaagacaaa aacaagacaa atttgagtgc 2160
tacaggtgtc acgcttggca tcacacatgt gcctgtgtat tcctctaggt ggttaccagg 2220
agctctgcca ctgcatgtcc actagtgacg ggttcgctcc accaccccag ctgggtagcc 2280
gctgctctca cataaggggt ccaattaaaa ttgccaggaa taaattcccc cggactttga 2340
cttctcaaga gctaagaagg tttgctgagt attctggcat gatgtttggt gatcaaacaa 2400
ctgctggcca aaaatgatga gtatttcccc ctcttgctga agatgtgctc catac       2455
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<210> 883
<211> 62
<212> PRT
<213> Homo sapiens

<400> 883
Met Thr His Ser Ser Ala Trp Leu Glu Arg Pro Gln Glu Thr Tyr Asn
                5   10   15
His Gly Gly Arg Arg Arg Gly Ser Lys Ala Arg Leu Thr Trp Trp Gln
               20   25   30
Glu Arg Thr Ser Glu Gly Gly Asp Cys His Lys Leu Phe Phe Phe Glu
           35   40   45
Thr Arg Val Trp Pro Cys Cys Pro Gly Trp Ser Ala Val Ala
       50   55   60

<210> 884
<211> 135
<212> PRT
<213> Homo sapiens

<400> 884
Met Val Glu Gly Glu Gly Glu Ala Arg His Val Leu His Gly Gly Arg
                5   10   15
Arg Glu Arg Val Arg Gly Glu Thr Ala Thr Asn Phe Phe Phe Leu Arg
               20   25   30
Gln Glu Ser Gly Pro Val Ala Gln Ala Gly Val Gln Trp His Asp Leu
           35   40   45
Ser Ser Leu Gln Pro Leu Pro His Arg Phe Lys Gln Phe Ser Cys Leu
       50   55   60
Ser Leu Pro His Ser Trp Asp His Arg Tyr Ala Pro Pro His Leu Ala
   65   70   75   80
Asn Phe Cys Ser Phe Ser Arg Asp Gly Val Ser Leu Cys Cys Ser Gly
                   85   90   95
Trp Ser Lys Thr Pro Gly Leu Gln Gln Ser Ala Cys Leu Gly Leu Pro
               100   105   110
Lys Cys Trp Gly Tyr Arg His Lys Pro Pro His Pro Ala Cys His Ile
           115   120   125
Leu Leu Asn Tyr Gln Val Ser
       130   135

<210> 885
<211> 77
<212> PRT
<213> Homo sapiens

<400> 885
Met His Tyr His Lys Asn Ser Met Gly Lys Ile Pro Pro Ile Ile Gln

326

```
                        5                       10                      15
Ser Pro Pro Thr Arg Ser Pro Pro Thr Arg Gly Ile Gly Trp Gly His
                20                      25                      30
Arg Ala Lys Pro Tyr Gln Met Leu Gln Gly Leu Gly Thr Leu Arg Pro
            35                      40                      45
Leu Arg Pro Gly Val Ser Val Thr Leu Leu Gly Ser Val Cys Leu Gln
        50                      55                      60
Asp Leu Pro Pro Leu Pro Trp Tyr Arg Arg Lys Val Leu
65                      70                      75
```

```
<210> 886
<211> 60
<212> PRT
<213> Homo sapiens
```

```
<400> 886
Met Leu Val His Ile Tyr Ser Cys Cys Gly Met Val Tyr Arg Phe Gly
                        5                       10                      15
Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu Ala Ser Leu Gly Ser Ser
                20                      25                      30
Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp Arg Gln Ala Asp Pro Ser
            35                      40                      45
Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu Leu Phe
        50                      55                      60
```

```
<210> 887
<211> 76
<212> PRT
<213> Homo sapiens
```

```
<400> 887
Met Cys Leu Cys Ile Pro Leu Gly Gly Tyr Gln Glu Leu Cys His Cys
                        5                       10                      15
Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
                20                      25                      30
Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
            35                      40                      45
Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
        50                      55                      60
Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
65                      70                      75
```

```
<210> 888
<211> 76
<212> PRT
<213> Homo sapiens
```

```
<400> 888
Met Val Lys Ser Arg Phe Thr Lys Asn Thr Lys Ile Thr Gln Ala Trp
                        5                       10                      15
Trp Arg Ala Pro Val Ile Pro Gly Thr Arg Glu Ala Glu Gly Gly Glu
                20                      25                      30
Ser Leu Glu Pro Gly Arg Leu Arg Glu Glu Asn Arg Leu Asn Pro Gly
            35                      40                      45
Gly Arg Gly Cys Ser Glu Pro Arg Ser Cys Cys Cys Thr Pro Ala Trp
        50                      55                      60
Ser Thr Glu Gln Asp Ser Ala Ser Lys Thr Asn Lys
65                      70                      75
```

```
<210> 889
<211> 80
<212> PRT
<213> Homo sapiens

<400> 889
Met Leu Leu His Ser Ser Leu Val Asn Arg Ala Arg Leu Cys Leu Lys
                  5                  10                  15
Asn Lys Gln Ile Asn Lys Gln Thr Asn Lys Thr Glu Arg Phe Cys Cys
             20                  25                  30
Asn Val Gln Gly Ala Ile Cys Ser Phe Lys Lys Ile Ile Phe Gly Gln
         35                  40                  45
Ala Gln Trp Leu Thr Pro Val Ile Pro Ala Leu Trp Glu Ala Lys Val
     50                  55                  60
Gly Gly Ser Phe Glu Val Arg Ser Leu Arg Ser Ala Trp Pro Thr Trp
65                  70                  75                  80

<210> 890
<211> 72
<212> PRT
<213> Homo sapiens

<400> 890
Met His Tyr His Lys Asn Ser Met Gly Lys Ile Pro Pro His Asn Pro
                  5                  10                  15
Ile Thr Ser His Gln Val Ser Ser Asp Thr Trp Asp Trp Val Gly Thr
             20                  25                  30
Gln Ser Gln Thr Val Ser Asp Ala Ala Gly Ala Gly Asp Thr Glu Thr
         35                  40                  45
Thr Gln Thr Trp Cys Leu Cys His Ser Ser Gly Leu Cys Leu Ser Pro
     50                  55                  60
Gly Pro Pro Ser Pro Ser Met Val
65                  70

<210> 891
<211> 77
<212> PRT
<213> Homo sapiens

<400> 891
Met His Tyr His Lys Asn Ser Met Gly Lys Ile Pro Pro Ile Ile Gln
                  5                  10                  15
Ser Pro Pro Thr Arg Ser Pro Pro Thr Arg Gly Ile Gly Trp Gly His
             20                  25                  30
Arg Ala Lys Pro Tyr Gln Met Leu Gln Gly Leu Gly Thr Leu Arg Pro
         35                  40                  45
Leu Arg Pro Gly Val Ser Val Thr Leu Leu Gly Ser Val Cys Leu Gln
     50                  55                  60
Asp Leu Pro Pro Leu Pro Trp Tyr Arg Arg Lys Val Leu
65                  70                  75

<210> 892
<211> 60
<212> PRT
<213> Homo sapiens

<400> 892
```

```
Met Leu Val His Ile Tyr Ser Cys Cys Gly Met Val Tyr Arg Phe Gly
              5                   10                  15
Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu Ala Ser Leu Gly Ser Ser
              20                  25                  30
Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp Arg Gln Ala Asp Pro Ser
          35                  40                  45
Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu Leu Phe
      50                  55                  60
```

```
<210> 893
<211> 76
<212> PRT
<213> Homo sapiens
```

```
<400> 893
Met Cys Leu Cys Ile Pro Leu Gly Gly Tyr Gln Glu Leu Cys His Cys
              5                   10                  15
Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
              20                  25                  30
Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
          35                  40                  45
Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
      50                  55                  60
Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
  65                  70                  75
```

```
<210> 894
<211> 2479
<212> DNA
<213> Homo sapiens
```

```
<400> 894
gtcatattga acattccaga tacctatcat tactcgatgc tgttgataac agcaagatgg 60
ctttgaactc agggtcacca ccagctattg gaccttacta tgaaaaccat ggataccaac 120
cggaaaaccc ctatcccgca cagcccactg tggtccccac tgtctacgag gtgcatccgg 180
ctcagtacta cccgtccccc gtgccccagt acgccccgag ggtcctgacg caggcttcca 240
accccgtcgt ctgcacgcag cccaaatccc catccgggac agtgtgcacc tcaaagacta 300
agaaagcact gtgcatcacc ttgaccctgg ggaccttcct cgtgggagct gcgctggccg 360
ctggcctact ctggaagttc atgggcagca agtgctccaa ctctgggata gagtgcgact 420
cctcaggtac ctgcatcaac ccctctaact ggtgtgatgg cgtgtcacac tgccccggcg 480
gggaggacga gaatcggtgt gttcgcctct acggaccaaa cttcatcctt cagatgtact 540
catctcagag gaagtcctgg caccctgtgt gccaagacga ctggaacgag aactacgggc 600
gggcggcctg cagggacatg ggctataaga taattttta ctctagccaa ggaatagtgg 660
atgacagcgg atccaccagc tttatgaaac tgaacacaag tgccggcaat gtcgatatct 720
ataaaaaact gtaccacagt gatgcctgtt cttcaaaagc agtggtttct ttacgctgtt 780
tagcctgcgg ggtcaacttg aactcaagcc gccagagcag gatcgtgggc ggtgagagcg 840
cgctcccggg ggcctggccc tggcaggtca gcctgcacgt ccagaacgtc cacgtgtgcg 900
gaggctccat catcacccccc gagtggatcg tgacagccgc ccactgcgtg gaaaaacctc 960
ttaacaatcc atggcattgg acggcatttg cggggattttt gagacaatct ttcatgttct 1020
atggagccgg ataccaagta caaaaagtga tttctcatcc aaattatgac tccaagacca 1080
agaacaatga cattgcgctg atgaagctgc agaagcctct gactttcaac gacctagtga 1140
aaccagtgtg tctgcccaac ccaggcatga tgctgcagcc agaacagctc tgctggattt 1200
ccgggtgggg ggccaccgag gagaaaggga gacctcaga agtgctgaac gctgccaagg 1260
tgcttctcat tgagacacag agatgcaaca gcagatatgt ctatgacaac ctgatcacac 1320
cagccatgat ctgtgccggc ttcctgcagg ggaacgtcga ttcttgccag ggtgacagtg 1380
gagggcctct ggtcacttcg aacaacaata tctggtggct gataggggat acaagctggg 1440
gttctggctg tgccaaagct tacagaccag gagtgtacgg gaatgtgatg gtattcacgg 1500
actggattta tcgacaaatg aaggcaaacg gctaatccac atggtcttcg tccttgacgt 1560
```

```
cgttttacaa gaaaacaatg gggctggttt tgcttccccg tgcatgattt actcttagag 1620
atgattcaga ggtcacttca tttttattaa acagtgaact tgtctggctt tggcactctc 1680
tgccatactg tgcaggctgc agtggctccc ctgcccagcc tgctctccct aaccccttgt 1740
ccgcaagggg tgatggccgg ctggttgtgg gcactggcgg tcaattgtgg aaggaagagg 1800
gttggaggct gcccccattg agatcttcct gctgagtcct ttccaggggc caattttgga 1860
tgagcatgga gctgtcactt ctcagctgct ggatgacttg agatgaaaaa ggagagacat 1920
ggaaagggag acagccaggt ggcacctgca gcggctgccc tctggggcca cttggtagtg 1980
tccccagcct acttcacaag gggattttgc tgatgggttc ttagagcctt agcagccctg 2040
gatggtggcc agaaataaag ggaccagccc ttcatgggtg gtgacgtggt agtcacttgt 2100
aaggggaaca gaaacatttt tgttcttatg gggtgagaat atagacagtg cccttggtgc 2160
gagggaagca attgaaaagg aacttgccct gagcactcct ggtgcaggtc tccacctgca 2220
cattgggtgg ggctcctggg agggagactc agccttcctc ctcatcctcc ctgaccctgc 2280
tcctagcacc ctggagagtg aatgcccctt ggtccctggc agggcgccaa gtttggcacc 2340
atgtcggcct cttcaggcct gatagtcatt ggaaattgag gtccatgggg gaaatcaagg 2400
atgctcagtt taaggtacac tgtttccatg ttatgtttct acacattgat ggtggtgacc 2460
ctgagttcaa agccatctt                                            2479
```

```
<210> 895
<211> 492
<212> PRT
<213> Homo sapiens

<400> 895
Met Ala Leu Asn Ser Gly Ser Pro Pro Ala Ile Gly Pro Tyr Tyr Glu
                5                   10                  15
Asn His Gly Tyr Gln Pro Glu Asn Pro Tyr Pro Ala Gln Pro Thr Val
            20                  25                  30
Val Pro Thr Val Tyr Glu Val His Pro Ala Gln Tyr Tyr Pro Ser Pro
        35                  40                  45
Val Pro Gln Tyr Ala Pro Arg Val Leu Thr Gln Ala Ser Asn Pro Val
    50                  55                  60
Val Cys Thr Gln Pro Lys Ser Pro Ser Gly Thr Val Cys Thr Ser Lys
65                  70                  75                  80
Thr Lys Lys Ala Leu Cys Ile Thr Leu Thr Leu Gly Thr Phe Leu Val
                85                  90                  95
Gly Ala Ala Leu Ala Ala Gly Leu Leu Trp Lys Phe Met Gly Ser Lys
            100                 105                 110
Cys Ser Asn Ser Gly Ile Glu Cys Asp Ser Ser Gly Thr Cys Ile Asn
        115                 120                 125
Pro Ser Asn Trp Cys Asp Gly Val Ser His Cys Pro Gly Gly Glu Asp
    130                 135                 140
Glu Asn Arg Cys Val Arg Leu Tyr Gly Pro Asn Phe Ile Leu Gln Met
145                 150                 155                 160
Tyr Ser Ser Gln Arg Lys Ser Trp His Pro Val Cys Gln Asp Asp Trp
                165                 170                 175
Asn Glu Asn Tyr Gly Arg Ala Ala Cys Arg Asp Met Gly Tyr Lys Asn
            180                 185                 190
Asn Phe Tyr Ser Ser Gln Gly Ile Val Asp Asp Ser Gly Ser Thr Ser
        195                 200                 205
Phe Met Lys Leu Asn Thr Ser Ala Gly Asn Val Asp Ile Tyr Lys Lys
    210                 215                 220
Leu Tyr His Ser Asp Ala Cys Ser Ser Lys Ala Val Val Ser Leu Arg
225                 230                 235                 240
Cys Leu Ala Cys Gly Val Asn Leu Asn Ser Ser Arg Gln Ser Arg Ile
                245                 250                 255
Val Gly Gly Glu Ser Ala Leu Pro Gly Ala Trp Pro Trp Gln Val Ser
            260                 265                 270
Leu His Val Gln Asn Val His Val Cys Gly Gly Ser Ile Ile Thr Pro
```

330

```
        275                   280                   285
Glu Trp Ile Val Thr Ala Ala His Cys Val Glu Lys Pro Leu Asn Asn
    290                   295                   300
Pro Trp His Trp Thr Ala Phe Ala Gly Ile Leu Arg Gln Ser Phe Met
305                   310                   315                   320
Phe Tyr Gly Ala Gly Tyr Gln Val Gln Lys Val Ile Ser His Pro Asn
                325                   330                   335
Tyr Asp Ser Lys Thr Lys Asn Asn Asp Ile Ala Leu Met Lys Leu Gln
            340                   345                   350
Lys Pro Leu Thr Phe Asn Asp Leu Val Lys Pro Val Cys Leu Pro Asn
        355                   360                   365
Pro Gly Met Met Leu Gln Pro Glu Gln Leu Cys Trp Ile Ser Gly Trp
    370                   375                   380
Gly Ala Thr Glu Glu Lys Gly Lys Thr Ser Glu Val Leu Asn Ala Ala
385                   390                   395                   400
Lys Val Leu Leu Ile Glu Thr Gln Arg Cys Asn Ser Arg Tyr Val Tyr
                405                   410                   415
Asp Asn Leu Ile Thr Pro Ala Met Ile Cys Ala Gly Phe Leu Gln Gly
                420                   425                   430
Asn Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Thr Ser
            435                   440                   445
Asn Asn Asn Ile Trp Trp Leu Ile Gly Asp Thr Ser Trp Gly Ser Gly
    450                   455                   460
Cys Ala Lys Ala Tyr Arg Pro Gly Val Tyr Gly Asn Val Met Val Phe
465                   470                   475                   480
Thr Asp Trp Ile Tyr Arg Gln Met Lys Ala Asn Gly
            485                   490
```

```
<210> 896
<211> 683
<212> DNA
<213> Homo sapiens

<400> 896
gtcatattga acattccaga tacctatcat tactcgatgc tgttgataac agcaagatgg 60
ctttgaactc agggtcacca ccagctattg gaccttacta tgaaaaccat ggataccaac 120
cggaaaaccc ctatcccgca cagcccactg tggtccccac tgtctacgag gtgcatccgg 180
ctcagtacta cccgtccccc gtgccccagt acgccccgag ggtcctgacg caggcttcca 240
accccgtcgt ctgcacgcag cccaaatccc catccgggac agtgtgcacc tcaaagacta 300
agaaagcact gtgcatcacc ttgaccctgg ggaccttcct cgtgggagct gcgctggccg 360
ctggcctact ctggaagttc atgggcagca agtgctccaa ctctgggata gagtgcgact 420
cctcaggtac ctgcatcaac ccctctaact ggtgtgatgg cgtgtcacac tgccccggcg 480
gggaggacga gaatcggtgt gttcgcctct acggaccaaa cttcatcctt cagatgtact 540
catctcagag gaagtcctgg caccctgtgt gccaagacga ctggaacgag aactacgggc 600
gggcggcctg cagggacatg ggctataaga taatttttta ctctagccaa ggaatagtgg 660
atgacagcgg atccaccagc ttt                                         683
```

```
<210> 897
<211> 209
<212> PRT
<213> Homo sapiens

<400> 897
Met Ala Leu Asn Ser Gly Ser Pro Pro Ala Ile Gly Pro Tyr Tyr Glu
1               5                   10                  15
```

331

```
Asn His Gly Tyr Gln Pro Glu Asn Pro Tyr Pro Ala Gln Pro Thr Val
            20                  25                  30
Val Pro Thr Val Tyr Glu Val His Pro Ala Gln Tyr Tyr Pro Ser Pro
            35                  40                  45
Val Pro Gln Tyr Ala Pro Arg Val Leu Thr Gln Ala Ser Asn Pro Val
    50                  55                  60
Val Cys Thr Gln Pro Lys Ser Pro Ser Gly Thr Val Cys Thr Ser Lys
65                  70                  75                  80
Thr Lys Lys Ala Leu Cys Ile Thr Leu Thr Leu Gly Thr Phe Leu Val
                85                  90                  95
Gly Ala Ala Leu Ala Ala Gly Leu Leu Trp Lys Phe Met Gly Ser Lys
                100                 105                 110
Cys Ser Asn Ser Gly Ile Glu Cys Asp Ser Ser Gly Thr Cys Ile Asn
        115                 120                 125
Pro Ser Asn Trp Cys Asp Gly Val Ser His Cys Pro Gly Gly Glu Asp
        130                 135                 140
Glu Asn Arg Cys Val Arg Leu Tyr Gly Pro Asn Phe Ile Leu Gln Met
145                 150                 155                 160
Tyr Ser Ser Gln Arg Lys Ser Trp His Pro Val Cys Gln Asp Asp Trp
                165                 170                 175
Asn Glu Asn Tyr Gly Arg Ala Ala Cys Arg Asp Met Gly Tyr Lys Asn
            180                 185                 190
Asn Phe Tyr Ser Ser Gln Gly Ile Val Asp Asp Ser Gly Ser Thr Ser
            195                 200                 205
Phe


<210> 898
<211> 27
<212> PRT
<213> Homo sapiens

<400> 898
Val Gly Glu Gly Leu Tyr Gln Gly Val Pro Arg Ala Glu Pro Gly Thr
 1               5                   10                  15
Glu Ala Arg Arg His Tyr Asp Glu Gly Val Arg
            20                  25

<210> 899
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 899
ggatccgccg ccaccatgtc actttctagc ctgct                          35

<210> 900
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 900
```

332

```
gtcgactcag ctggaccaca gccgcag                                             27

<210> 901
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 901
ggatccgccg ccaccatggg ctgcaggctg ctct                                    34

<210> 902
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 902
gtcgactcag aaatcctttc tcttgac                                            27


<210> 903
<211> 936
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...()
<223> n = A,T,C or G

<400> 903
atgggctgca ggctgntctg ctgtgcggtt ctctgtctcc tgggagcggt ccccatggaa 60
acgggagtta cgcagacacc aagacacctg gtcatgggaa tgacaaataa gaagtctttg 120
aaatgtgaac aacatctggg tcataacgct atgtattggt acaagcaaag tgctaagaag 180
ccactggagc tcatgtttgt ctacagtctt gaagaacggg ttgaaaacaa cagtgtgcca 240
agtcgcttct cacctgaatg ccccaacagc tctcacttat tccttcacct acacaccctg 300
cagccagaag actcggccct gtatctctgc gccagcagcc aagaccggac aagcagctcc 360
tacgagcagt acttcgggcc gggcaccagg ctcacggtca cagaggacct gaaaaacgtg 420
ttcccacccg aggtcgctgt gtttgagcca tcagaagcag agatctccca cacccaaaag 480
gccacactgg tgtgcctggc cacaggcttc taccccgacc acgtggagct gagctggtgg 540
gtgaatggga aggaggtgca cagtggggtc agcacagacc cgcagcccct caaggagcag 600
cccgccctca atgactccag atactgcctg agcagccgcc tgaggtctc ggccaccttc 660
tggcagaacc cccgcaacca cttccgctgt caagtccagt tctacgggct ctcggagaat 720
gacgagtgga cccaggatag ggccaaacct gtcacccaga tcgtcagcgc cgaggcctgg 780
ggtagagcag actgtggctt cacctccgag tcttaccagc aagggtcct gtctgccacc 840
atcctctatg agatcttgct agggaaggcc accttgtatg ccgtgctggt cagtgccctc 900
gtgctgatgg ccatggtcaa gagaaaggat ttctga                          936

<210> 904
<211> 834
<212> DNA
<213> Homo sapiens
```

333

```
<220>
<221> misc_feature
<222> (1)...()
<223> n = A,T,C or G

<400> 904
atgtcacttt ctagcctgct naaggtggtc acagcttcac tgtggctagg acctggcatt 60
gcccagaaga taactcaaac ccaaccagga atgttcgtgc aggaaaagga ggctgtgact 120
ctggactgca catatgacac cagtgatcaa agttatggtc tcttctggta caagcagccc 180
agcagtgggg aaatgatttt tcttatttat caggggtctt atgacgagca aaatgcaaca 240
gaaggtcgct actcattgaa tttccagaag gcaagaaaat ccgccaacct tgtcatctcc 300
gcttcacaac tgggggactc agcaatgtat ttctgtgcaa tgagagaggg cgcgggagga 360
ggaaacaaac tcacctttgg gacaggcact cagctaaaag tggaactcaa tatccagaac 420
cctgaccctg ccgtgtacca gctgagagac tctaaatcca gtgacaagtc tgtctgccta 480
ttcaccgatt ttgattctca aacaaatgtg tcacaaagta aggattctga tgtgtatatc 540
acagacaaaa ctgtgctaga catgaggtct atggacttca agagcaacag tgctgtggcc 600
tggagcaaca atctgacttt gcatgtgca aacgccttca acaacagcat tattccagaa 660
gacaccttct tccccagccc agaaagttcc tgtgatgtca agctggtcga gaaaagcttt 720
gaaacagata cgaacctaaa cttcaaaac ctgtcagtga ttgggttccg aatcctcctc 780
ctgaaagtgg ccgggtttaa tctgctcatg acgctgcggc tgtggtccag ctga 834

<210> 905
<211> 311
<212> PRT
<213> Homo sapiens

<220>
<221> variant
<222> (1)...(311)
<223> Xaa = Any amino acid

<400> 905
Met Gly Cys Arg Leu Xaa Cys Cys Ala Val Leu Cys Leu Leu Gly Ala
                5                   10                  15
Val Pro Met Glu Thr Gly Val Thr Gln Thr Pro Arg His Leu Val Met
            20                  25                  30
Gly Met Thr Asn Lys Lys Ser Leu Lys Cys Glu Gln His Leu Gly His
            35                  40                  45
Asn Ala Met Tyr Trp Tyr Lys Gln Ser Ala Lys Lys Pro Leu Glu Leu
        50                  55                  60
Met Phe Val Tyr Ser Leu Glu Glu Arg Val Glu Asn Asn Ser Val Pro
65                  70                  75                  80
Ser Arg Phe Ser Pro Glu Cys Pro Asn Ser Ser His Leu Phe Leu His
                85                  90                  95
Leu His Thr Leu Gln Pro Glu Asp Ser Ala Leu Tyr Leu Cys Ala Ser
            100                 105                 110
Ser Gln Asp Arg Thr Ser Ser Ser Tyr Glu Gln Tyr Phe Gly Pro Gly
            115                 120                 125
Thr Arg Leu Thr Val Thr Glu Asp Leu Lys Asn Val Phe Pro Pro Glu
        130                 135                 140
Val Ala Val Phe Glu Pro Ser Glu Ala Glu Ile Ser His Thr Gln Lys
145                 150                 155                 160
Ala Thr Leu Val Cys Leu Ala Thr Gly Phe Tyr Pro Asp His Val Glu
                165                 170                 175
Leu Ser Trp Trp Val Asn Gly Lys Glu Val His Ser Gly Val Ser Thr
            180                 185                 190
Asp Pro Gln Pro Leu Lys Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr
            195                 200                 205
```

334

```
Cys Leu Ser Ser Arg Leu Arg Val Ser Ala Thr Phe Trp Gln Asn Pro
    210                 215                 220
Arg Asn His Phe Arg Cys Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn
225                 230                 235                 240
Asp Glu Trp Thr Gln Asp Arg Ala Lys Pro Val Thr Gln Ile Val Ser
            245                 250                 255
Ala Glu Ala Trp Gly Arg Ala Asp Cys Gly Phe Thr Ser Glu Ser Tyr
            260                 265                 270
Gln Gln Gly Val Leu Ser Ala Thr Ile Leu Tyr Glu Ile Leu Leu Gly
        275                 280                 285
Lys Ala Thr Leu Tyr Ala Val Leu Val Ser Ala Leu Val Leu Met Ala
    290                 295                 300
Met Val Lys Arg Lys Asp Phe
305                 310


<210> 906
<211> 277
<212> PRT
<213> Homo sapiens

<400> 906
Met Ser Leu Ser Ser Leu Leu Lys Val Val Thr Ala Ser Leu Trp Leu
                5                   10                  15
Gly Pro Gly Ile Ala Gln Lys Ile Thr Gln Thr Gln Pro Gly Met Phe
            20                  25                  30
Val Gln Glu Lys Glu Ala Val Thr Leu Asp Cys Thr Tyr Asp Thr Ser
        35                  40                  45
Asp Gln Ser Tyr Gly Leu Phe Trp Tyr Lys Gln Pro Ser Ser Gly Glu
    50                  55                  60
Met Ile Phe Leu Ile Tyr Gln Gly Ser Tyr Asp Glu Gln Asn Ala Thr
65                  70                  75                  80
Glu Gly Arg Tyr Ser Leu Asn Phe Gln Lys Ala Arg Lys Ser Ala Asn
                85                  90                  95
Leu Val Ile Ser Ala Ser Gln Leu Gly Asp Ser Ala Met Tyr Phe Cys
            100                 105                 110
Ala Met Arg Glu Gly Ala Gly Gly Gly Asn Lys Leu Thr Phe Gly Thr
        115                 120                 125
Gly Thr Gln Leu Lys Val Glu Leu Asn Ile Gln Asn Pro Asp Pro Ala
    130                 135                 140
Val Tyr Gln Leu Arg Asp Ser Lys Ser Ser Asp Lys Ser Val Cys Leu
145                 150                 155                 160
Phe Thr Asp Phe Asp Ser Gln Thr Asn Val Ser Gln Ser Lys Asp Ser
            165                 170                 175
Asp Val Tyr Ile Thr Asp Lys Thr Val Leu Asp Met Arg Ser Met Asp
            180                 185                 190
Phe Lys Ser Asn Ser Ala Val Ala Trp Ser Asn Lys Ser Asp Phe Ala
        195                 200                 205
Cys Ala Asn Ala Phe Asn Asn Ser Ile Ile Pro Glu Asp Thr Phe Phe
    210                 215                 220
Pro Ser Pro Glu Ser Ser Cys Asp Val Lys Leu Val Glu Lys Ser Phe
225                 230                 235                 240
Glu Thr Asp Thr Asn Leu Asn Phe Gln Asn Leu Ser Val Ile Gly Phe
            245                 250                 255
Arg Ile Leu Leu Leu Lys Val Ala Gly Phe Asn Leu Leu Met Thr Leu
            260                 265                 270
Arg Leu Trp Ser Ser
        275
```

335

<210> 907
<211> 1536
<212> DNA
<213> Homo sapiens

<400> 907
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gtgcccaatc accagggtct cacccctttc aagctggctg gagtggaggg taacactgtg 120
atgtttcagc acctgatgca gaagcggaag cacacccagt ggacgtatgg accactgacc 180
tcgactctct atgacctcac agagatcgac tcctcagggg atgagcagtc cctgctggaa 240
cttatcatca ccaccaagaa gcgggaggct cgccagatcc tggaccagac gccggtgaag 300
gagctggtga gcctcaagtg gaagcggtac gggcggccgt acttctgcat gctgggtgcc 360
atatatctgc tgtacatcat ctgcttcacc atgtgctgca tctaccgccc cctcaagccc 420
aggaccaata accgcacgag cccccgggac aacaccctct acagcagaa gctacttcag 480
gaagcctaca tgacccctaa ggacgatatc cggctggtcg gggagctggt gactgtcatt 540
ggggctatca tcatcctgct ggtagaggtt ccagacatct tcagaatggg ggtcactcgc 600
ttctttggac agaccatcct tgggggccca ttccatgtcc tcatcatcac ctatgccttc 660
atggtgctgg tgaccatggt gatgcggctc atcagtgcca gcgggggaggt ggtacccatg 720
tcctttgcac tcgtgctggg ctggtgcaac gtcatgtact tcgcccgagg attccagatg 780
ctaggcccct tcaccatcat gattcagaag atgattttg cgacctgat gcgattctgc 840
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cgctccggga tctgcggacg ggagtatggc ctgggagacc gctggttcct gcgggtggaa 1260
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ctggaggacg gggagagctg ggaatatcag atctga   1536

<210> 908
<211> 1533
<212> DNA
<213> Homo sapiens

<400> 908
atgtacaacc tgttgctgtc ctacgacaga catggggacc acctgcagcc cctggacctc 60
gtgcccaatc accagggtct cacccctttc aagctggctg gagtggaggg taacactgtg 120
atgtttcagc acctgatgca gaagcggaag cacacccagt ggacgtatgg accactgacc 180
tcgactctct atgacctcac agagatcgac tcctcagggg atgagcagtc cctgctggaa 240
cttatcatca ccaccaagaa gcgggaggct cgccagatcc tggaccagac gccggtgaag 300
gagctggtga gcctcaagtg gaagcggtac gggcggccgt acttctgcat gctgggtgcc 360
atatatctgc tgtacatcat ctgcttcacc atgtgctgca tctaccgccc cctcaagccc 420
aggaccaata accgcacgag cccccgggac aacaccctct acagcagaa gctacttcag 480
gaagcctaca tgacccctaa ggacgatatc cggctggtcg gggagctggt gactgtcatt 540
ggggctatca tcatcctgct ggtagaggtt ccagacatct tcagaatggg ggtcactcgc 600
ttctttggac agaccatcct tgggggccca ttccatgtcc tcatcatcac ctatgccttc 660
atggtgctgg tgaccatggt gatgcggctc atcagtgcca gcgggggaggt ggtacccatg 720
tcctttgcac tcgtgctggg ctggtgcaac gtcatgtact tcgcccgagg attccagatg 780
ctaggcccct tcaccatcat gattcagaag atgattttg cgacctgat gcgattctgc 840
tggctgatgg ctgtggtcat cctgggcttt gcttcagcct ctatatcat cttccagaca 900
gaggacccg aggagctagg ccacttctac gactacccca tggccctgtt cagcaccttc 960
gagctgttcc ttaccatcat cgatggccca gccaactaca acgtggacct gcccttcatg 1020
tacagcatca cctatgctgc ctttgccatc atcgccacac tgctcatgct caacctcctc 1080

336

```
attgccatga tgggcgacac tcactggcga gtggcccatg agcgggatga gctgtggagg 1140
gcccagattg tggccaccac ggtgatgctg gagcggaagc tgcctcgctg cctgtggcct 1200
cgctccggga tctgcggacg ggagtatggc ctgggagacc gctggttcct gcgggtggaa 1260
gacaggcaag atctcaaccg gcagcggatc caacgctacg cacaggcctt ccacacccgg 1320
ggctctgagg atttggacaa agactcagtg gaaaaactag agctgggctg tcccttcagc 1380
ccccacctgt cccttcctat gccctcagtg tctcgaagta cctcccgcag cagtgccaat 1440
tgggaaaggc ttcggcaagg gaccctgagg agagacctgc gtgggataat caacaggggt 1500
ctggaggacg gggagagctg ggaatatcag atc                                1533
```

<210> 909
<211> 511
<212> PRT
<213> Homo sapiens

<400> 909
```
Met Tyr Asn Leu Leu Leu Ser Tyr Asp Arg His Gly Asp His Leu Gln
                  5                  10                  15
Pro Leu Asp Leu Val Pro Asn His Gln Gly Leu Thr Pro Phe Lys Leu
                 20                  25                  30
Ala Gly Val Glu Gly Asn Thr Val Met Phe Gln His Leu Met Gln Lys
             35                  40                  45
Arg Lys His Thr Gln Trp Thr Tyr Gly Pro Leu Thr Ser Thr Leu Tyr
     50                  55                  60
Asp Leu Thr Glu Ile Asp Ser Ser Gly Asp Glu Gln Ser Leu Leu Glu
 65                  70                  75                  80
Leu Ile Ile Thr Thr Lys Lys Arg Glu Ala Arg Gln Ile Leu Asp Gln
                 85                  90                  95
Thr Pro Val Lys Glu Leu Val Ser Leu Lys Trp Lys Arg Tyr Gly Arg
                100                 105                 110
Pro Tyr Phe Cys Met Leu Gly Ala Ile Tyr Leu Leu Tyr Ile Ile Cys
            115                 120                 125
Phe Thr Met Cys Cys Ile Tyr Arg Pro Leu Lys Pro Arg Thr Asn Asn
        130                 135                 140
Arg Thr Ser Pro Arg Asp Asn Thr Leu Leu Gln Gln Lys Leu Leu Gln
145                 150                 155                 160
Glu Ala Tyr Met Thr Pro Lys Asp Asp Ile Arg Leu Val Gly Glu Leu
                165                 170                 175
Val Thr Val Ile Gly Ala Ile Ile Ile Leu Leu Val Glu Val Pro Asp
            180                 185                 190
Ile Phe Arg Met Gly Val Thr Arg Phe Phe Gly Gln Thr Ile Leu Gly
        195                 200                 205
Gly Pro Phe His Val Leu Ile Ile Thr Tyr Ala Phe Met Val Leu Val
    210                 215                 220
Thr Met Val Met Arg Leu Ile Ser Ala Ser Gly Glu Val Val Pro Met
225                 230                 235                 240
Ser Phe Ala Leu Val Leu Gly Trp Cys Asn Val Met Tyr Phe Ala Arg
                245                 250                 255
Gly Phe Gln Met Leu Gly Pro Phe Thr Ile Met Ile Gln Lys Met Ile
            260                 265                 270
Phe Gly Asp Leu Met Arg Phe Cys Trp Leu Met Ala Val Val Ile Leu
        275                 280                 285
Gly Phe Ala Ser Ala Phe Tyr Ile Ile Phe Gln Thr Glu Asp Pro Glu
    290                 295                 300
Glu Leu Gly His Phe Tyr Asp Tyr Pro Met Ala Leu Phe Ser Thr Phe
305                 310                 315                 320
Glu Leu Phe Leu Thr Ile Ile Asp Gly Pro Ala Asn Tyr Asn Val Asp
                325                 330                 335
Leu Pro Phe Met Tyr Ser Ile Thr Tyr Ala Ala Phe Ala Ile Ile Ala
```

337

```
              340                    345                    350
Thr Leu Leu Met Leu Asn Leu Leu Ile Ala Met Met Gly Asp Thr His
          355                    360                    365
Trp Arg Val Ala His Glu Arg Asp Glu Leu Trp Arg Ala Gln Ile Val
      370                    375                    380
Ala Thr Thr Val Met Leu Glu Arg Lys Leu Pro Arg Cys Leu Trp Pro
385                    390                    395                    400
Arg Ser Gly Ile Cys Gly Arg Glu Tyr Gly Leu Gly Asp Arg Trp Phe
              405                    410                    415
Leu Arg Val Glu Asp Arg Gln Asp Leu Asn Arg Gln Arg Ile Gln Arg
          420                    425                    430
Tyr Ala Gln Ala Phe His Thr Arg Gly Ser Glu Asp Leu Asp Lys Asp
          435                    440                    445
Ser Val Glu Lys Leu Glu Leu Gly Cys Pro Phe Ser Pro His Leu Ser
      450                    455                    460
Leu Pro Met Pro Ser Val Ser Arg Ser Thr Ser Arg Ser Ser Ala Asn
465                    470                    475                    480
Trp Glu Arg Leu Arg Gln Gly Thr Leu Arg Arg Asp Leu Arg Gly Ile
              485                    490                    495
Ile Asn Arg Gly Leu Glu Asp Gly Glu Ser Trp Glu Tyr Gln Ile
          500                    505                    510
```

<210> 910
<211> 134
<212> PRT
<213> Homo sapiens

<400> 910
```
Met Tyr Asn Leu Leu Leu Ser Tyr Asp Arg His Gly Asp His Leu Gln
                  5                   10                  15
Pro Leu Asp Leu Val Pro Asn His Gln Gly Leu Thr Pro Phe Lys Leu
              20                  25                  30
Ala Gly Val Glu Gly Asn Thr Val Met Phe Gln His Leu Met Gln Lys
          35                  40                  45
Arg Lys His Thr Gln Trp Thr Tyr Gly Pro Leu Thr Ser Thr Leu Tyr
      50                  55                  60
Asp Leu Thr Glu Ile Asp Ser Ser Gly Asp Glu Gln Ser Leu Leu Glu
65                  70                  75                  80
Leu Ile Ile Thr Thr Lys Lys Arg Glu Ala Arg Gln Ile Leu Asp Gln
              85                  90                  95
Thr Pro Val Lys Glu Leu Val Ser Leu Lys Trp Lys Arg Tyr Gly Arg
          100                 105                 110
Pro Tyr Phe Cys Met Leu Gly Ala Ile Tyr Leu Leu Tyr Ile Ile Cys
          115                 120                 125
Phe Thr Met Cys Cys Ile
      130
```

<210> 911
<211> 55
<212> PRT
<213> Homo sapiens

<400> 911
```
Ala Tyr Arg Pro Leu Lys Pro Arg Thr Asn Asn Arg Thr Ser Pro Arg
                  5                   10                  15
Asp Asn Thr Leu Leu Gln Gln Lys Leu Leu Gln Glu Ala Tyr Met Thr
              20                  25                  30
Pro Lys Asp Asp Ile Arg Leu Val Gly Glu Leu Val Thr Val Ile Gly
```

338

```
                35                40                45
Ala Ile Ile Ile Leu Leu Val
        50                55


<210> 912
<211> 39
<212> PRT
<213> Homo sapiens


<400> 912
Glu Val Pro Asp Ile Phe Arg Met Gly Val Thr Arg Phe Phe Gly Gln
                  5                  10                 15
Thr Ile Leu Gly Gly Pro Phe His Val Leu Ile Ile Thr Tyr Ala Phe
            20                  25                 30
Met Val Leu Val Thr Met Val
        35


<210> 913
<211> 19
<212> PRT
<213> Homo sapiens


<400> 913
Met Arg Leu Ile Ser Ala Ser Gly Glu Val Val Pro Met Ser Phe Ala
                  5                  10                 15
Leu Val Leu



<210> 914
<211> 52
<212> PRT
<213> Homo sapiens


<400> 914
Gly Trp Cys Asn Val Met Tyr Phe Ala Arg Gly Phe Gln Met Leu Gly
                  5                  10                 15
Pro Phe Thr Ile Met Ile Gln Lys Met Ile Phe Gly Asp Leu Met Arg
            20                  25                 30
Phe Cys Trp Leu Met Ala Val Val Ile Leu Gly Phe Ala Ser Ala Phe
        35                  40                 45
Tyr Ile Ile Phe
    50


<210> 915
<211> 213
<212> PRT
<213> Homo sapiens


<400> 915
Gln Thr Glu Asp Pro Glu Glu Leu Gly His Phe Tyr Asp Tyr Pro Met
                  5                  10                 15
Ala Leu Phe Ser Thr Phe Glu Leu Phe Leu Thr Ile Ile Asp Gly Pro
            20                  25                 30
Ala Asn Tyr Asn Val Asp Leu Pro Phe Met Tyr Ser Ile Thr Tyr Ala
        35                  40                 45
Ala Phe Ala Ile Ile Ala Thr Leu Leu Met Leu Asn Leu Leu Ile Ala
    50                  55                 60
Met Met Gly Asp Thr His Trp Arg Val Ala His Glu Arg Asp Glu Leu
```

339

```
 65                        70                        75                        80
Trp Arg Ala Gln Ile Val Ala Thr Thr Val Met Leu Glu Arg Lys Leu
                85                        90                        95
Pro Arg Cys Leu Trp Pro Arg Ser Gly Ile Cys Gly Arg Glu Tyr Gly
            100                       105                       110
Leu Gly Asp Arg Trp Phe Leu Arg Val Glu Asp Arg Gln Asp Leu Asn
            115                       120                       125
Arg Gln Arg Ile Gln Arg Tyr Ala Gln Ala Phe His Thr Arg Gly Ser
        130                       135                       140
Glu Asp Leu Asp Lys Asp Ser Val Glu Lys Leu Glu Leu Gly Cys Pro
145                       150                       155                       160
Phe Ser Pro His Leu Ser Leu Pro Met Pro Ser Val Ser Arg Ser Thr
                165                       170                       175
Ser Arg Ser Ser Ala Asn Trp Glu Arg Leu Arg Gln Gly Thr Leu Arg
            180                       185                       190
Arg Asp Leu Arg Gly Ile Ile Asn Arg Gly Leu Glu Asp Gly Glu Ser
            195                       200                       205
Trp Glu Tyr Gln Ile
    210
```

```
<210> 916
<211> 1302
<212> DNA
<213> Homo sapiens

<400> 916
tggacaaagg gggtcacaca ttccttccat acggttgagc ctctacctgc ctggtgctgg 60
tcacagttca gcttcttcat gatggtggat cccaatggca atgaatccag tgctacatac 120
ttcatcctaa taggcctccc tggtttagaa gaggctcagt tctggttggc cttcccattg 180
tgctccctct accttattgc tgtgctaggt aacttgacaa tcatctacat tgtgcggact 240
gagcacagcc tgcatgagcc catgtatata tttctttgca tgctttcagg cattgacatc 300
ctcatctcca cctcatccat gcccaaaatg ctggccatct tctggttcaa ttccactacc 360
atccagtttg atgcttgtct gctacagatg tttgccatcc actccttatc tggcatggaa 420
tccacagtgc tgctggccat ggcttttgac cgctatgtgg ccatctgtca cccactgcgc 480
catgccacag tacttacgtt gcctcgtgtc accaaaattg gtgtggctgc tgtggtgcgg 540
ggggctgcac tgatggcacc ccttcctgtc ttcatcaagc agctgccctt ctgccgctcc 600
aaatatcctt tcccattccta ctgcctacac caagatgtca tgaagctggc ctgtgatgat 660
atccgggtca atgtcgtcta tggccttatc gtcatcatct ccgccattgg cctggactca 720
cttctcatct ccttctcata tctgcttatt cttaagactg tgttgggctt gacacgtgaa 780
gcccaggcca aggcatttgg cacttgcgtc tctcatgtgt gtgctgtgtt catattctat 840
gtacctttca ttggattgtc catggtgcat cgctttagca agcggcgtga ctctccgctg 900
cccgtcatct tggccaatat ctatctgctg gttcctcctg tgctcaaccc aattgtctat 960
ggagtgaaga caaaggagat tcgacagcgc atccttcgac ttttccatgt ggccacacac 1020
gcttcagagc cctaggtgtc agtgatcaaa cttcttttcc attcagagtc ctctgattca 1080
gattttaatg ttaacatttt ggaagacagt attcagaaaa aaatttcct taataaaaat 1140
acaactcaga tccttcaaat atgaaactgg ttggggaatc tccatttttt caatattatt 1200
ttcttctttg ttttcttgct acatataatt attaataccc tgactaggtt gtggtttgag 1260
ggttattact tttcatttta ccatgcagtc caaatctaaa ct 1302
```

```
<210> 917
<211> 2061
<212> DNA
<213> Homo sapiens

<400> 917
acgattcgac agcgcatcct tcgacttttc catgtggcca cacacgcttc agagccctag 60
gtgtcagtga tcaaacttct tttccattca gagtcctctg attcagattt taatgttaac 120
```

340

```
attttggaag acagtattca gaaaaaaaat ttccttaata aaaatacaac tcagatcctt 180
caaatatgaa actggttggg gaatctccat tttttcaata ttattttctt ctttgttttc 240
ttgctacata taattattaa taccctgact aggttgtggt tggagggtta ttactttca 300
ttttaccatg cagtccaaat ctaaactgct tctactgatg gtttacagca ttctgagata 360
agaatggtac atctagagaa catttgccaa aggcctaagc acggcaaagg aaaataaaca 420
cagaatataa taaaatgaga taatctagct taaaactata acttcctctt cagaactccc 480
aaccacattg gatctcagaa aaatgctgtc ttcaaaatga cttctacaga gaagaaataa 540
tttttcctct ggacactagc acttaagggg aagattggaa gtaaagcctt gaaaagagta 600
catttaccta cgttaatgaa agttgacaca ctgttctgag agttttcaca gcatatggac 660
cctgtttttc ctatttaatt ttcttatcaa ccctttaatt aggcaaagat attattagta 720
ccctcattgt agccatggga aaattgatgt tcagtgggga tcagtgaatt aaatggggtc 780
atacaagtat aaaaattaaa aaaaaaggac ttcatgccca atctcatatg atgtggaaga 840
actgttagag agaccaacag ggtagtgggt tagagatttc cagagtctta cattttctag 900
aggaggtatt taatttcttc tcactcatcc agtgttgtat ttaggaattt cctggcaaca 960
gaactcatgg ctttaatccc actagctatt gcttattgtc ctggtccaat tgccaattac 1020
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tctgcatagg gcttatagca agttatttat ttttaaaagt tccataggtg attctgatag 1140
gcagtgaggt tagggagcca ccagttatga tgggaagtat ggaatggcag gtcttgaaga 1200
taacattggc cttttgagtg tgactcgtag ctggaaagtg agggaatctt caggaccatg 1260
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ttcatcttca acaggatatg acaacagtgt taaccaagaa actcaaatta caaatactaa 1440
aacatgtgat catatatgtg gtaagtttca ttttcttttt caatcctcag gttccctgat 1500
atggattcct ataacatgct ttcatcccct tttgtaatgg atatcatatt tggaaatgcc 1560
tatttaatac ttgtatttgc tgctggactg taagcccatg agggcactgt ttattattga 1620
atgtcatctc tgttcatcat tgactgctct ttgctcatca ttgaatcccc cagcaaagtg 1680
cctagaacat aatagtgctt atgcttgaca ccggttattt ttcatcaaac ctgattcctt 1740
ctgtcctgaa cacatagcca ggcaattttc cagccttctt tgagttgggt attattaaat 1800
tctggccatt acttccaatg tgagtggaag tgacatgtgc aatttctata cctggctcat 1860
aaaaccctcc catgtgcagc ctttcatgtt gacattaaat gtgacttggg aagctatgtg 1920
ttacacagag taaatcacca gaagcctgga tttctgaaaa aactgtgcag agccaaacct 1980
ctgtcatttg caactcccac ttgtatttgt acgaggcagt tggataagtg aaaaataaag 2040
tactattgtg tcaagtctct g                                           2061
```

```
<210> 918
<211> 957
<212> DNA
<213> Homo sapiens
```

```
<400> 918
atgatggtgg atcccaatgg caatgaatcc agtgctacat acttcatcct aataggcctc 60
cctggtttag aagaggctca gttctggttg gccttcccat tgtgctccct ctaccttatt 120
gctgtgctag gtaacttgac aatcatctac attgtcgga ctgagcacag cctgcatgag 180
cccatgtata tatttctttg catgctttca ggcattgaca tcctcatctc cacctcatcc 240
atgcccaaaa tgctggccat cttctggttc aattccacta ccatccagtt tgatgcttgt 300
ctgctacaga tgtttgccat ccactcctta tctggcatgg aatccacagt gctgctggcc 360
atggcttttg accgctatgt ggccatctgt cacccactgc gccatgccac agtacttacg 420
ttgcctcgtg tcaccaaaat tggtgtggct gctgtggtgc gggggggctgc actgatggca 480
ccccttcctg tcttcatcaa gcagctgccc ttctgccgct ccaatatcct ttcccattcc 540
tactgcctac accaagatgt catgaagctg gcctgtgatg atatccgggt caatgtcgtc 600
tatggcctta tcgtcatcat ctccgccatt ggcctggact cacttctcat ctccttctca 660
tatctgctta ttcttaagac tgtgttgggc ttgacacgtg aagcccaggc caaggcattt 720
ggcacttgcg tctctcatgt gtgtgctgtg ttcatattct atgtaccttt cattggattg 780
tccatggtgc atcgctttag caagcggcgt gactctccgc tgcccgtcat cttggccaat 840
atctatctgc tggttcctcc tgtgctcaac ccaattgtct atggagtgaa gacaaaggag 900
attcgacagc gcatccttcg acttttccat gtggccacac acgcttcaga gccctag    957
```

```
<210> 919
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341

<210> 954
<211> DNA

<211> 954
<212> DNA
<213> Homo sapiens

<400> 919
atgatggtgg atcccaatgg caatgaatcc agtgctacat acttcatcct aataggcctc 60
cctggtttag aagaggctca gttctggttg gccttccat tgtgctccct ctaccttatt 120
gctgtgctag gtaacttgac aatcatctac attgtgcgga ctgagcacag cctgcatgag 180
cccatgtata tatttctttg catgctttca ggcattgaca tcctcatctc cacctcatcc 240
atgcccaaaa tgctggccat cttctggttc aattccacta ccatccagtt tgatgcttgt 300
ctgctacaga tgtttgccat ccactcctta tctggcatgg aatccacagt gctgctggcc 360
atggcttttg accgctatgt ggccatctgt cacccactgc gccatgccac agtacttacg 420
ttgcctcgtg tcaccaaaat tggtgtggct gctgtggtgc gggggggctgc actgatggca 480
ccccttcctg tcttcatcaa gcagctgccc ttctgccgct ccaatatcct ttcccattcc 540
tactgcctac accaagatgt catgaagctg gcctgtgatg atatccgggt caatgtcgtc 600
tatggcctta tcgtcatcat ctccgccatt ggcctggact cacttctcat ctccttctca 660
tatctgctta ttcttaagac tgtgttgggc ttgacacgtg aagcccaggc caaggcattt 720
ggcacttgcg tctctcatgt gtgtgctgtg ttcatattct atgtaccttt cattggattg 780
tccatggtgc atcgctttag caagcggcgt gactctccgc tgcccgtcat cttggccaat 840
atctatctgc tggttcctcc tgtgctcaac ccaattgtct atggagtgaa gacaaaggag 900
attcgacagc gcatccttcg actttccat gtggccacac acgcttcaga gccc   954

<210> 920
<211> 318
<212> PRT
<213> Homo sapiens

<400> 920
Met Met Val Asp Pro Asn Gly Asn Glu Ser Ser Ala Thr Tyr Phe Ile
                    5   10   15
Leu Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe Trp Leu Ala Phe
            20   25   30
Pro Leu Cys Ser Leu Tyr Leu Ile Ala Val Leu Gly Asn Leu Thr Ile
        35   40   45
Ile Tyr Ile Val Arg Thr Glu His Ser Leu His Glu Pro Met Tyr Ile
    50   55   60
Phe Leu Cys Met Leu Ser Gly Ile Asp Ile Leu Ile Ser Thr Ser Ser
65   70   75   80
Met Pro Lys Met Leu Ala Ile Phe Trp Phe Asn Ser Thr Thr Ile Gln
                85   90   95
Phe Asp Ala Cys Leu Leu Gln Met Phe Ala Ile His Ser Leu Ser Gly
            100   105   110
Met Glu Ser Thr Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
        115   120   125
Ile Cys His Pro Leu Arg His Ala Thr Val Leu Thr Leu Pro Arg Val
    130   135   140
Thr Lys Ile Gly Val Ala Ala Val Val Arg Gly Ala Ala Leu Met Ala
145   150   155   160
Pro Leu Pro Val Phe Ile Lys Gln Leu Pro Phe Cys Arg Ser Asn Ile
                165   170   175
Leu Ser His Ser Tyr Cys Leu His Gln Asp Val Met Lys Leu Ala Cys
            180   185   190
Asp Asp Ile Arg Val Asn Val Val Tyr Gly Leu Ile Val Ile Ile Ser
        195   200   205
Ala Ile Gly Leu Asp Ser Leu Leu Ile Ser Phe Ser Tyr Leu Leu Ile
    210   215   220
Leu Lys Thr Val Leu Gly Leu Thr Arg Glu Ala Gln Ala Lys Ala Phe
225   230   235   240

```
Gly Thr Cys Val Ser His Val Cys Ala Val Phe Ile Phe Tyr Val Pro
                245                 250                 255
Phe Ile Gly Leu Ser Met Val His Arg Phe Ser Lys Arg Arg Asp Ser
            260                 265                 270
Pro Leu Pro Val Ile Leu Ala Asn Ile Tyr Leu Leu Val Pro Pro Val
        275                 280                 285
Leu Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Glu Ile Arg Gln Arg
    290                 295                 300
Ile Leu Arg Leu Phe His Val Ala Thr His Ala Ser Glu Pro
305                 310                 315
```

```
<210> 921
<211> 28
<212> PRT
<213> Homo sapiens
```

```
<400> 921
Met Met Val Asp Pro Asn Gly Asn Glu Ser Ser Ala Thr Tyr Phe Ile
                5                  10                  15
Leu Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe
            20                  25
```

```
<210> 922
<211> 9
<212> PRT
<213> Homo sapiens
```

```
<400> 922
Arg Thr Glu His Ser Leu His Glu Pro
                5
```

```
<210> 923
<211> 21
<212> PRT
<213> Homo sapiens
```

```
<400> 923
Lys Met Leu Ala Ile Phe Trp Phe Asn Ser Thr Thr Ile Gln Phe Asp
                5                  10                  15
Ala Cys Leu Leu Gln
            20
```

```
<210> 924
<211> 20
<212> PRT
<213> Homo sapiens
```

```
<400> 924
Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg His Ala Thr Val Leu
                5                  10                  15
Thr Leu Pro Arg
            20
```

```
<210> 925
<211> 37
<212> PRT
<213> Homo sapiens
```

343

<400> 925
Phe Ile Lys Gln Leu Pro Phe Cys Arg Ser Asn Ile Leu Ser His Ser
                5   10   15
Tyr Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Asp Asp Ile Arg
            20   25   30
Val Asn Val Val Tyr
            35

<210> 926
<211> 13
<212> PRT
<213> Homo sapiens

<400> 926
Lys Thr Val Leu Gly Leu Thr Arg Glu Ala Gln Ala Lys
                5   10

<210> 927
<211> 10
<212> PRT
<213> Homo sapiens

<400> 927
Val His Arg Phe Ser Lys Arg Arg Asp Ser
                5   10

<210> 928
<211> 22
<212> PRT
<213> Homo sapiens

<400> 928
Lys Thr Lys Glu Ile Arg Gln Arg Ile Leu Arg Leu Phe His Val Ala
                5   10   15

Thr His Ala Ser Glu Pro
            20

<210> 929
<211> 3245
<212> DNA
<213> Homo sapiens

<400> 929
gtcgacccac gcgtccgcgc gagctaagca ggaggcggag gcggaggcgg agggcgaggg 60
gcggggagcg ccgcctggag cgcggcaggt catattgaac attccagata cctatcatta 120
ctcgatgctg ttgataacag caagatggct ttgaactcag ggtcaccacc agctattgga 180
ccttactatg aaaaccatgg ataccaaccg gaaaacccct atcccgcaca gcccactgtg 240
gtccccactg tctacgaggt gcatccggct cagtactacc cgtcccccgt gccccagtac 300
gccccgaggg tcctgacgca ggcttccaac cccgtcgtct gcacgcagcc caaatcccca 360
tccgggacag tgtgcacctc aaagactaag aaagcactgt gcatcacctt gaccctgggg 420
accttcctcg tgggagctgc gctggccgct ggcctactct ggaagttcat gggcagcaag 480
tgctccaact ctgggataga gtgcgactcc tcaggtacct gcatcaaccc ctctaactgg 540
tgtgatggcg tgtcacactg ccccggcggg gaggacgaga atcggtgtgt tcgcctctac 600
ggatcaaact tcatccttca ggtgtactca tctcagagga agtcctggca ccctgtgtgc 660
caagacgact ggaacgagaa ctacgggcgg cggcctgca gggacatggg ctataagaat 720
aatttttact ctagccaagg aatagtggat gacagcggat ccaccagctt tatgaaactg 780

344

```
aacacaagtg ccggcaatgt cgatatctat aaaaaactgt accacagtga tgcctgttct 840
tcaaaagcag tggtttcttt acgctgtata gcctgcgggg tcaacttgaa ctcaagccgc 900
cagagcagga ttgtgggcgg cgagagcgcg ctcccggggg cctggccctg gcaggtcagc 960
ctgcacgtcc agaacgtcca cgtgtgcgga ggctccatca tcacccccga gtggatcgtg 1020
acagccgccc actgcgtgga aaaacctctt aacaatccat ggcattggac ggcatttgcg 1080
gggattttga dacaatcttt catgttctat ggagccggat accaagtaga aaaagtgatt 1140
tctcatccaa attatgactc caagaccaag aacaatgaca ttgcgctgat gaagctgcag 1200
aagcctctga ctttcaacga cctagtgaaa ccagtgtgtc tgcccaaccc aggcatgatg 1260
ctgcagccag aacagcctg ctggatttcc gggtggggggg ccaccgagga gaaagggaag 1320
acctcagaag tgctgaacgc tgccaaggtg cttctcattg agacacagag atgcaacagc 1380
agatatgtct atgacaacct gatcacacca gccatgatct gtgccggctt cctgcagggg 1440
aacgtcgatt cttgccaggg tgacagtgga gggcctctgg tcacttcgaa gaacaaatatc 1500
tggtggctga tagggggatac aagctggggt tctggctgtg ccaaagctta cagaccagga 1560
gtgtacggga atgtgatggt attcacggac tggatttatc gacaaatgag ggcagacggc 1620
taatccacat ggtcttcgtc cttgacgtcg ttttacaaga aaacaatggg gctggttttg 1680
cttccccgtg catgatttac tcttagagat gattcagagg tcacttcatt tttattaaac 1740
agtgaacttg tctggctttg gcactctctg ccattctgtg caggctgcag tggctcccct 1800
gcccagcctg ctctcccctaa ccccttgtcc gcaaggggtg atggccggct ggttgtgggc 1860
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gtcctttcca ggggccaatt ttggatgagc atggagctgt cacctctcag ctgctggatg 1980
acttgagatg aaaaaggaga gacatggaaa gggagacagc caggtggcac ctgcagcggc 2040
tgccctctgg ggccacttgg tagtgtcccc agcctacctc tccacaaggg gattttgctg 2100
atgggttctt agagccttag cagccctgga tggtggccag aaataaaggg accagcccctt 2160
catgggtggt gacgtggtag tcacttgtaa ggggaacaga aacattttg ttcttatggg 2220
gtgagaatat agacagtgcc cttggtgcga gggaagcaat tgaaaaggaa cttgccctga 2280
gcactcctgg tgcaggtctc cacctgcaca ttgggtggggg ctcctgggag ggagactcag 2340
ccttcctcct catcctccct gaccctgctc ctagcaccct ggagagtgca catgccccctt 2400
ggtcctggca gggcgccaag tctggcacca tgttggcctc ttcaggcctg ctagtcactg 2460
gaaattgagg tccatggggg aaatcaagga tgctcagttt aaggtacact gtttccatgt 2520
tatgtttcta cacattgcta cctcagtgct cctggaaact tagcttttga tgtctccaag 2580
tagtccacct tcatttaact ctttgaaact gtatcatctt tgccaagtaa gagtggtggc 2640
ctatttcagc tgcttgaca aaatgactgg ctcctgactt aacgttctat aaatgaatgt 2700
gctgaagcaa agtgcccatg gtgggcggcga agaagagaaa gatgtgtttt gttttggact 2760
ctctgtggtc ccttccaatg ctgtgggttt ccaaccaggg gaagggtccc ttttgcattg 2820
ccaagtgcca taaccatgag cactactcta ccatggttct gcctcctggc caagcaggct 2880
ggtttgcaag aatgaaatga atgattctac agctaggact taaccttgaa atggaaagtc 2940
ttgcaatccc atttgcagga tccgtctgtg cacatgcctc tgtagagagc agcattccca 3000
gggaccttgg aaacagttgg cactgtaagg tgcttgctcc ccaagacaca tcctaaaagg 3060
tgttgtaatg gtgaaaacgt cttccttctt tattgcccct tcttatttat gtgaacaact 3120
gtttgtcttt ttttgtatct ttttttaaact gtaaagttca attgtgaaaa tgaatatcat 3180
gcaaataaat tatgcgattt tttttttcaaa gtaaaaaaaa aaaaaaaaaa aaaagggcg 3240
gccgc                                                                3245
```

```
<210> 930
<211> 1479
<212> DNA
<213> Homo sapiens

<400> 930
atggctttga actcagggtc accaccagct attggacctt actatgaaaa ccatggatac 60
caaccggaaa accccctatcc cgcacagccc actgtggtcc ccactgtcta cgaggtgcat 120
ccggctcagt actacccgtc ccccgtgccc cagtacgccc cgagggtcct gacgcaggct 180
tccaacccccg tcgtctgcac gcagcccaaa tccccatccg ggacagtgtg cacctcaaag 240
actaagaaag cactgtgcat caccttgacc ctgggacct tcctcgtggg agctcgctgg 300
gccgctggag tactctggaa gttcatgggc agcaagtgct ccaactctgg gatagagtgc 360
gactcctcag gtacctgcat caaccccctct aactggtgtg atggcgtgtc cacctgcccc 420
ggcgggggagg acgagaatcg gtgtgttcgc ctctacggat caaacttcat cttcaggtg 480
```

345

```
tactcatctc agaggaagtc ctggcaccct gtgtgccaag acgactggaa cgagaactac 540
gggcgggcgg cctgcaggga catgggctat aagaataatt tttactctag ccaaggaata 600
gtggatgaca gcggatccac cagctttatg aaactgaaca caagtgccgg caatgtcgat 660
atctataaaa aactgtacca cagtgatgcc tgttcttcaa aagcagtggt ttctttacgc 720
tgtatagcct gcggggtcaa cttgaactca agccgccaga gcaggattgt gggcggcgag 780
agcgcgctcc cgggggcctg gccctggcag gtcagcctgc acgtccagaa cgtccacgtg 840
tgcggaggct ccatcatcac ccccgagtgg atcgtgacag ccgcccactg cgtggaaaaa 900
cctcttaaca atccatggca ttggacggca tttgcgggga ttttgagaca atctttcatg 960
ttctatggag ccggatacca agtagaaaaa gtgatttctc atccaaatta tgactccaag 1020
accaagaaca atgacattgc gctgatgaag ctgcagaagc tctgtgacttt caacgaccta 1080
gtgaaaccag tgtgtctgcc caacccaggc atgatgctgc agccagaaca gctctgctgg 1140
atttccgggt ggggggccac cgaggagaaa gggaagacct cagaagtgct gaacgctgcc 1200
aaggtgcttc tcattgagac acagagatgc aacagcagat atgtctatga caacctgatc 1260
acaccagcca tgatctgtgc cggcttcctg caggggaacg tcgattcttg ccagggtgac 1320
agtggagggc ctctggtcac ttcgaagaac aatatctggt ggctgatagg ggatacaagc 1380
tggggttctg gctgtgccaa agcttacaga ccaggagtgt acgggaatgt gatggtattc 1440
acggactgga tttatcgaca aatgagggca gacggctaa                          1479
```

```
<210> 931
<211> 1476
<212> DNA
<213> Homo sapiens

<400> 931
atggctttga actcagggtc accaccagct attggacctt actatgaaaa ccatggatac 60
caaccggaaa accccctatcc cgcacagccc actgtggtcc ccactgtcta cgaggtgcat 120
ccggctcagt actacccgtc ccccgtgccc cagtacgccc cgagggtcct gacgcaggct 180
tccaaccccg tcgtctgcac gcagcccaaa tccccatccg ggacagtgtg cacctcaaag 240
actaagaaag cactgtgcat caccttgacc ctggggacct tcctcgtggg agctgcgctg 300
gccgctggcc tactctggaa gttcatgggc agcaagtgct ccaactctgg gatagagtgc 360
gactcctcag gtacctgcat caaccccct aactggtgtg atggcgtgtc acactgcccc 420
ggcgggggagg acgagaatcg gtgtgttcgc ctctacggat caaacttcat ccttcaggtg 480
tactcatctc agaggaagtc ctggcaccct gtgtgccaag acgactggaa cgagaactac 540
gggcgggcgg cctgcaggga catgggctat aagaataatt tttactctag ccaaggaata 600
gtggatgaca gcggatccac cagctttatg aaactgaaca caagtgccgg caatgtcgat 660
atctataaaa aactgtacca cagtgatgcc tgttcttcaa aagcagtggt ttctttacgc 720
tgtatagcct gcggggtcaa cttgaactca agccgccaga gcaggattgt gggcggcgag 780
agcgcgctcc cgggggcctg gccctggcag gtcagcctgc acgtccagaa cgtccacgtg 840
tgcggaggct ccatcatcac ccccgagtgg atcgtgacag ccgcccactg cgtggaaaaa 900
cctcttaaca atccatggca ttggacggca tttgcgggga ttttgagaca atctttcatg 960
ttctatggag ccggatacca agtagaaaaa gtgatttctc atccaaatta tgactccaag 1020
accaagaaca atgacattgc gctgatgaag ctgcagaagc tctgacttt caacgaccta 1080
gtgaaaccag tgtgtctgcc caacccaggc atgatgctgc agccagaaca gctctgctgg 1140
atttccgggt ggggggccac cgaggagaaa gggaagacct cagaagtgct gaacgctgcc 1200
aaggtgcttc tcattgagac acagagatgc aacagcagat atgtctatga caacctgatc 1260
acaccagcca tgatctgtgc cggcttcctg caggggaacg tcgattcttg ccagggtgac 1320
agtggagggc ctctggtcac ttcgaagaac aatatctggt ggctgatagg ggatacaagc 1380
tggggttctg gctgtgccaa agcttacaga ccaggagtgt acgggaatgt gatggtattc 1440
acggactgga tttatcgaca aatgagggca gacggc                            1476
```

```
<210> 932
<211> 492
<212> PRT
<213> Homo sapiens

<400> 932
```

346

```
Met Ala Leu Asn Ser Gly Ser Pro Pro Ala Ile Gly Pro Tyr Tyr Glu
                  5                   10                  15
Asn His Gly Tyr Gln Pro Glu Asn Pro Tyr Pro Ala Gln Pro Thr Val
              20                  25                  30
Val Pro Thr Val Tyr Glu Val His Pro Ala Gln Tyr Tyr Pro Ser Pro
          35                  40                  45
Val Pro Gln Tyr Ala Pro Arg Val Leu Thr Gln Ala Ser Asn Pro Val
      50                  55                  60
Val Cys Thr Gln Pro Lys Ser Pro Ser Gly Thr Val Cys Thr Ser Lys
65                  70                  75                  80
Thr Lys Lys Ala Leu Cys Ile Thr Leu Thr Leu Gly Thr Phe Leu Val
              85                  90                  95
Gly Ala Ala Leu Ala Ala Gly Leu Leu Trp Lys Phe Met Gly Ser Lys
              100                 105                 110
Cys Ser Asn Ser Gly Ile Glu Cys Asp Ser Ser Gly Thr Cys Ile Asn
          115                 120                 125
Pro Ser Asn Trp Cys Asp Gly Val Ser His Cys Pro Gly Gly Glu Asp
      130                 135                 140
Glu Asn Arg Cys Val Arg Leu Tyr Gly Ser Asn Phe Ile Leu Gln Val
145                 150                 155                 160
Tyr Ser Ser Gln Arg Lys Ser Trp His Pro Val Cys Gln Asp Asp Trp
              165                 170                 175
Asn Glu Asn Tyr Gly Arg Ala Ala Cys Arg Asp Met Gly Tyr Lys Asn
              180                 185                 190
Asn Phe Tyr Ser Ser Gln Gly Ile Val Asp Asp Ser Gly Ser Thr Ser
          195                 200                 205
Phe Met Lys Leu Asn Thr Ser Ala Gly Asn Val Asp Ile Tyr Lys Lys
      210                 215                 220
Leu Tyr His Ser Asp Ala Cys Ser Ser Lys Ala Val Val Ser Leu Arg
225                 230                 235                 240
Cys Ile Ala Cys Gly Val Asn Leu Asn Ser Ser Arg Gln Ser Arg Ile
              245                 250                 255
Val Gly Gly Glu Ser Ala Leu Pro Gly Ala Trp Pro Trp Gln Val Ser
              260                 265                 270
Leu His Val Gln Asn Val His Val Cys Gly Gly Ser Ile Ile Thr Pro
          275                 280                 285
Glu Trp Ile Val Thr Ala Ala His Cys Val Glu Lys Pro Leu Asn Asn
      290                 295                 300
Pro Trp His Trp Thr Ala Phe Ala Gly Ile Leu Arg Gln Ser Phe Met
305                 310                 315                 320
Phe Tyr Gly Ala Gly Tyr Gln Val Glu Lys Val Ile Ser His Pro Asn
              325                 330                 335
Tyr Asp Ser Lys Thr Lys Asn Asn Asp Ile Ala Leu Met Lys Leu Gln
          340                 345                 350
Lys Pro Leu Thr Phe Asn Asp Leu Val Lys Pro Val Cys Leu Pro Asn
          355                 360                 365
Pro Gly Met Met Leu Gln Pro Glu Gln Leu Cys Trp Ile Ser Gly Trp
      370                 375                 380
Gly Ala Thr Glu Glu Lys Gly Lys Thr Ser Glu Val Leu Asn Ala Ala
385                 390                 395                 400
Lys Val Leu Leu Ile Glu Thr Gln Arg Cys Asn Ser Arg Tyr Val Tyr
              405                 410                 415
Asp Asn Leu Ile Thr Pro Ala Met Ile Cys Ala Gly Phe Leu Gln Gly
          420                 425                 430
Asn Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Thr Ser
          435                 440                 445
Lys Asn Asn Ile Trp Trp Leu Ile Gly Asp Thr Ser Trp Gly Ser Gly
          450                 455                 460
```

347

```
Cys Ala Lys Ala Tyr Arg Pro Gly Val Tyr Gly Asn Val Met Val Phe
465                 470                 475                 480
Thr Asp Trp Ile Tyr Arg Gln Met Arg Ala Asp Gly
                485                 490
```

```
<210> 933
<211> 100
<212> PRT
<213> Homo sapiens

<400> 933
Met Ala Leu Asn Ser Gly Ser Pro Pro Ala Ile Gly Pro Tyr Tyr Glu
                5                 10                 15
Asn His Gly Tyr Gln Pro Glu Asn Pro Tyr Pro Ala Gln Pro Thr Val
                20                 25                 30
Val Pro Thr Val Tyr Glu Val His Pro Ala Gln Tyr Tyr Pro Ser Pro
            35                 40                 45
Val Pro Gln Tyr Ala Pro Arg Val Leu Thr Gln Ala Ser Asn Pro Val
        50                 55                 60
Val Cys Thr Gln Pro Lys Ser Pro Ser Gly Thr Val Cys Thr Ser Lys
65                 70                 75                 80
Thr Lys Lys Ala Leu Cys Ile Thr Leu Thr Leu Gly Thr Phe Leu Val
                85                 90                 95
Gly Ala Ala Leu
            100
```

```
<210> 934
<211> 393
<212> PRT
<213> Homo sapiens

<400> 934
Leu Ala Ala Gly Leu Leu Trp Lys Phe Met Gly Ser Lys Cys Ser Asn
                5                 10                 15
Ser Gly Ile Glu Cys Asp Ser Ser Gly Thr Cys Ile Asn Pro Ser Asn
                20                 25                 30
Trp Cys Asp Gly Val Ser His Cys Pro Gly Gly Glu Asp Glu Asn Arg
            35                 40                 45
Cys Val Arg Leu Tyr Gly Ser Asn Phe Ile Leu Gln Val Tyr Ser Ser
        50                 55                 60
Gln Arg Lys Ser Trp His Pro Val Cys Gln Asp Asp Trp Asn Glu Asn
65                 70                 75                 80
Tyr Gly Arg Ala Ala Cys Arg Asp Met Gly Tyr Lys Asn Asn Phe Tyr
                85                 90                 95
Ser Ser Gln Gly Ile Val Asp Asp Ser Gly Ser Thr Ser Phe Met Lys
                100                 105                 110
Leu Asn Thr Ser Ala Gly Asn Val Asp Ile Tyr Lys Lys Leu Tyr His
            115                 120                 125
Ser Asp Ala Cys Ser Ser Lys Ala Val Val Ser Leu Arg Cys Ile Ala
        130                 135                 140
Cys Gly Val Asn Leu Asn Ser Ser Arg Gln Ser Arg Ile Val Gly Gly
145                 150                 155                 160
Glu Ser Ala Leu Pro Gly Ala Trp Pro Trp Gln Val Ser Leu His Val
                165                 170                 175
Gln Asn Val His Val Cys Gly Gly Ser Ile Ile Thr Pro Glu Trp Ile
            180                 185                 190
```

348

```
Val Thr Ala Ala His Cys Val Glu Lys Pro Leu Asn Asn Pro Trp His
    195                 200                 205
Trp Thr Ala Phe Ala Gly Ile Leu Arg Gln Ser Phe Met Phe Tyr Gly
    210                 215                 220
Ala Gly Tyr Gln Val Glu Lys Val Ile Ser His Pro Asn Tyr Asp Ser
225                 230                 235                 240
Lys Thr Lys Asn Asn Asp Ile Ala Leu Met Lys Leu Gln Lys Pro Leu
            245                 250                 255
Thr Phe Asn Asp Leu Val Lys Pro Val Cys Leu Pro Asn Pro Gly Met
            260                 265                 270
Met Leu Gln Pro Glu Gln Leu Cys Trp Ile Ser Gly Trp Gly Ala Thr
    275                 280                 285
Glu Glu Lys Gly Lys Thr Ser Glu Val Leu Asn Ala Ala Lys Val Leu
    290                 295                 300
Leu Ile Glu Thr Gln Arg Cys Asn Ser Arg Tyr Val Tyr Asp Asn Leu
305                 310                 315                 320
Ile Thr Pro Ala Met Ile Cys Ala Gly Phe Leu Gln Gly Asn Val Asp
            325                 330                 335
Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Thr Ser Lys Asn Asn
            340                 345                 350
Ile Trp Trp Leu Ile Gly Asp Thr Ser Trp Gly Ser Gly Cys Ala Lys
    355                 360                 365
Ala Tyr Arg Pro Gly Val Tyr Gly Asn Val Met Val Phe Thr Asp Trp
    370                 375                 380
Ile Tyr Arg Gln Met Arg Ala Asp Gly
385                 390
```

```
<210> 935
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 935
gtgctgtggg agtccccgcg gc                                         22

<210> 936
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 936
cgtgaactcg agtcattaga ttaacctcgt ggacgc                         36

<210> 937
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer
```

349

<400> 937
gtgctgtggg agtccccgcg gc   22

<210> 938
<211> 1158
<212> DNA
<213> Homo sapiens

<400> 938
catatgcagc atcaccacca tcaccacgtg ctgtgggagt ccccgcggca gtgcagcagc 60
tggacacttt gcgagggctt ttgctggctg ctgctgctgc ccgtcatgct actcatcgta 120
gcccgcccgg tgaagctcgc tgctttccct acctccttaa gtgactgcca aacgcccacc 180
ggctggaatt gctctggtta tgatgacaga gaaaatgatc tcttcctctg tgacaccaac 240
acctgtaaat ttgatgggga atgtttaaga attggagaca ctgtgacttg cgtctgtcag 300
ttcaagtgca acaatgacta tgtgcctgtg tgtggctcca tggggagag ctaccagaat 360
gagtgttacc tgcgacaggc tgcatgcaaa cagcagagtg agatacttgt ggtgtcagaa 420
ggatcatgtg ccacagatgc aggatcagga tctggagatg gagtccatga aggctctgga 480
gaaactagtc aaaaggagac atccacctgt gatatttgcc agtttggtgc agaatgtgac 540
gaagatgccg aggatgtctg gtgtgtgtgt aatattgact gttctcaaac caacttcaat 600
cccctctgcg cttctgatgg gaaatcttat gataatgcat gccaaatcaa agaagcatcg 660
tgtcagaaac aggagaaaat tgaagtcatg tctttgggtc gatgtcaaga taacacaact 720
acaactacta gtctgaaga tgggcattat gcaagaacag attatgcaga gaatgctaac 780
aaattagaag aaagtgccag agaacaccac atccacttgtc cggaacatta caatggcttc 840
tgcatgcatg ggaagtgtga gcattctatc aatatgcagg agccatcttg caggtgtgat 900
gctggttata ctggacaaca ctgtgaaaaa aaggactaca gtgttctata cgttgttccc 960
ggtcctgtac gatttcagta tgtcttaatc gcagctgtga ttggaacaat tcagattgct 1020
gtcatctgtg tggtggtcct ctgcatcaca aggaaatgcc ccagaagcaa cagaattcac 1080
agacagaagc aaaatacagg gcactacagt tcagacaata caacaagagc gtccacgagg 1140
ttaatctaat gactcgag   1158

<210> 939
<211> 1020
<212> DNA
<213> Homo sapiens

<400> 939
atgcagcatc accaccatca ccacgactgc caaacgccca ccggctggaa ttgctctggt 60
tatgatgaca gagaaaatga tctcttcctc tgtgacacca acacctgtaa atttgatggg 120
gaatgtttaa gaattggaga cactgtgact tgcgtctgtc agttcaagtg caacaatgac 180
tatgtgcctg tgtgtggctc caatggggag agctaccaga atgagtgtta cctgcgacag 240
gctgcatgca aacagcagag tgagatactt gtggtgtcag aaggatcatg tgccacagat 300
gcaggatcag gatctggaga tggagtccat gaaggctctg gagaaactag tcaaaaggag 360
acatccacct gtgatatttg ccagtttggt gcagaatgtg acgaagatgc cgaggatgtc 420
tggtgtgtgt gtaatattga ctgttctcaa accaacttca atcccctctg cgcttctgat 480
gggaaatctt atgataatgc atgccaaatc aaagaagcat cgtgtcagaa acaggagaaa 540
attgaagtca tgtctttggg tcgatgtcaa gataacacaa ctacaactac taagtctgaa 600
gatgggcatt atgcaagaac agattatgca gagaatgcta caaattaga agaaagtgcc 660
agagaacacc acatccttg tccggaacat tacaatggct ctgcatgca tgggaagtgt 720
gagcattcta tcaatatgca ggagccatct tgcaggtgtg atgctggtta tactggacaa 780
cactgtgaaa aaaaggacta cagtgttcta tacgttgttc ccggtcctgt acgatttcag 840
tatgtcttaa tcgcagctgt gattggaaca attcagattg ctgtcatctg tgtggtggtc 900
ctctgcatca caaggaaatg ccccagaagc aacagaattc acagacagaa gcaaaataca 960
gggcactaca gttcagacaa tacaacaaga gcgtccacga ggttaatcta atgactcgag 1020

<210> 940
<211> 336

350

<210> 940
<211> 335
<212> PRT
<213> Homo sapiens

<400> 940
Met Gln His His His His His His Asp Cys Gln Thr Pro Thr Gly Trp
                    5   10   15
Asn Cys Ser Gly Tyr Asp Asp Arg Glu Asn Asp Leu Phe Leu Cys Asp
                20   25   30
Thr Asn Thr Cys Lys Phe Asp Gly Glu Cys Leu Arg Ile Gly Asp Thr
            35   40   45
Val Thr Cys Val Cys Gln Phe Lys Cys Asn Asn Asp Tyr Val Pro Val
        50   55   60
Cys Gly Ser Asn Gly Glu Ser Tyr Gln Asn Glu Cys Tyr Leu Arg Gln
65   70   75   80
Ala Ala Cys Lys Gln Gln Ser Glu Ile Leu Val Val Ser Glu Gly Ser
                85   90   95
Cys Ala Thr Asp Ala Gly Ser Gly Ser Gly Asp Gly Val His Glu Gly
            100   105   110
Ser Gly Glu Thr Ser Gln Lys Glu Thr Ser Thr Cys Asp Ile Cys Gln
        115   120   125
Phe Gly Ala Glu Cys Asp Glu Asp Ala Glu Asp Val Trp Cys Val Cys
    130   135   140
Asn Ile Asp Cys Ser Gln Thr Asn Phe Asn Pro Leu Cys Ala Ser Asp
145   150   155   160
Gly Lys Ser Tyr Asp Asn Ala Cys Gln Ile Lys Glu Ala Ser Cys Gln
                165   170   175
Lys Gln Glu Lys Ile Glu Val Met Ser Leu Gly Arg Cys Gln Asp Asn
            180   185   190
Thr Thr Thr Thr Thr Lys Ser Glu Asp Gly His Tyr Ala Arg Thr Asp
        195   200   205
Tyr Ala Glu Asn Ala Asn Lys Leu Glu Glu Ser Ala Arg Glu His His
    210   215   220
Ile Pro Cys Pro Glu His Tyr Asn Gly Phe Cys Met His Gly Lys Cys
225   230   235   240
Glu His Ser Ile Asn Met Gln Glu Pro Ser Cys Arg Cys Asp Ala Gly
                245   250   255
Tyr Thr Gly Gln His Cys Glu Lys Lys Asp Tyr Ser Val Leu Tyr Val
            260   265   270
Val Pro Gly Pro Val Arg Phe Gln Tyr Val Leu Ile Ala Ala Val Ile
        275   280   285
Gly Thr Ile Gln Ile Ala Val Ile Cys Val Val Val Leu Cys Ile Thr
    290   295   300
Arg Lys Cys Pro Arg Ser Asn Arg Ile His Arg Gln Lys Gln Asn Thr
305   310   315   320
Gly His Tyr Ser Ser Asp Asn Thr Thr Arg Ala Ser Thr Arg Leu Ile
                325   330   335

<210> 941
<211> 381
<212> PRT
<213> Homo sapiens

<400> 941
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                    5   10   15
Cys Ser Ser Trp Thr Leu Cys Glu Gly Phe Cys Trp Leu Leu Leu Leu
                20   25   30

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Pro Val Met Leu Leu Ile Val Ala Arg Pro Val Lys Leu Ala Ala Phe
        35                  40                  45
Pro Thr Ser Leu Ser Asp Cys Gln Thr Pro Thr Gly Trp Asn Cys Ser
    50                  55                  60
Gly Tyr Asp Asp Arg Glu Asn Asp Leu Phe Leu Cys Asp Thr Asn Thr
65                  70                  75                  80
Cys Lys Phe Asp Gly Glu Cys Leu Arg Ile Gly Asp Thr Val Thr Cys
            85                  90                  95
Val Cys Gln Phe Lys Cys Asn Asn Asp Tyr Val Pro Val Cys Gly Ser
            100                 105                 110
Asn Gly Glu Ser Tyr Gln Asn Glu Cys Tyr Leu Arg Gln Ala Ala Cys
        115                 120                 125
Lys Gln Gln Ser Glu Ile Leu Val Val Ser Glu Gly Ser Cys Ala Thr
    130                 135                 140
Asp Ala Gly Ser Gly Ser Gly Asp Gly Val His Glu Gly Ser Gly Glu
145                 150                 155                 160
Thr Ser Gln Lys Glu Thr Ser Thr Cys Asp Ile Cys Gln Phe Gly Ala
            165                 170                 175
Glu Cys Asp Glu Asp Ala Glu Asp Val Trp Cys Val Cys Asn Ile Asp
            180                 185                 190
Cys Ser Gln Thr Asn Phe Asn Pro Leu Cys Ala Ser Asp Gly Lys Ser
        195                 200                 205
Tyr Asp Asn Ala Cys Gln Ile Lys Glu Ala Ser Cys Gln Lys Gln Glu
    210                 215                 220
Lys Ile Glu Val Met Ser Leu Gly Arg Cys Gln Asp Asn Thr Thr Thr
225                 230                 235                 240
Thr Thr Lys Ser Glu Asp Gly His Tyr Ala Arg Thr Asp Tyr Ala Glu
            245                 250                 255
Asn Ala Asn Lys Leu Glu Glu Ser Ala Arg Glu His His Ile Pro Cys
            260                 265                 270
Pro Glu His Tyr Asn Gly Phe Cys Met His Gly Lys Cys Glu His Ser
        275                 280                 285
Ile Asn Met Gln Glu Pro Ser Cys Arg Cys Asp Ala Gly Tyr Thr Gly
    290                 295                 300
Gln His Cys Glu Lys Lys Asp Tyr Ser Val Leu Tyr Val Val Pro Gly
305                 310                 315                 320
Pro Val Arg Phe Gln Tyr Val Leu Ile Ala Ala Val Ile Gly Thr Ile
            325                 330                 335
Gln Ile Ala Val Ile Cys Val Val Val Leu Cys Ile Thr Arg Lys Cys
            340                 345                 350
Pro Arg Ser Asn Arg Ile His Arg Gln Lys Gln Asn Thr Gly His Tyr
        355                 360                 365
Ser Ser Asp Asn Thr Thr Arg Ala Ser Thr Arg Leu Ile
    370                 375                 380
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<210> 942
<211> 45
<212> DNA
<213> Homo sapiens

<400> 942
ctgctggcga acggcagaat gcctaccgtg ctgcagtgcg tgaac                45

<210> 943
<211> 15
<212> PRT
<213> Homo sapiens
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<400> 943
Leu Leu Ala Asn Gly Arg Met Pro Thr Val Leu Gln Cys Val Asn
                  5   10   15